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# SESSIONAL PAPERS.

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VOLUME 15.

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THIRD SESSION OF THE SIXTH PARLIAMENT

OF THE



DOMINION OF CANADA.

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SESSION 1889.

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VOLUME XXII.

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- A.** Report of the Royal Commission on the relations of Capital and Labor in Canada, together with the evidence adduced in the different provinces. Presented to the House of Commons, 16th April, 1889, by Hon. M. Bowell.....*Printed for Distribution only.*

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- 1.** Tables of the Trade and Navigation of the Dominion of Canada, for the fiscal year ended 30th June, 1888. Presented to the House of Commons, 1st February, 1889, by Hon. M. Bowell—  
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### CONTENTS OF VOLUME No. 2.

- 2.** Public Accounts of Canada, for the fiscal year ended 30th June, 1888; presented to the House of Commons, 1st February, 1889, by Hon. G. E. Foster. Estimates for the fiscal year ending 30th June, 1890; presented 8th February, 1889. Supplementary Estimates of Canada, for the fiscal year ending 30th June, 1889; presented 4th April, 1889. Supplementary Estimates of Canada, for the fiscal year ending 30th June, 1890; presented 23rd April, 1889. Additional Supplementary Estimates, for the year ending 30th June, 1890; presented 27th April, 1889—  
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- 3.** Report of the Auditor General on Appropriation Accounts, for the year ended 30th June, 1888. Presented to the House of Commons, 4th February, 1889, by Hon. G. E. Foster—  
*Printed for both Distribution and Sessional Papers.*

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- 4.** Report, Returns and Statistics of the Inland Revenues of the Dominion of Canada, for the fiscal year ended 30th June, 1888. Presented to the House of Commons, 1st February, 1889, by Hon. J. Costigan.....*Printed for both Distribution and Sessional Papers.*
- 4a.** Canal Statistics for Season of Navigation, 1887, being Supplement No. 1 to the Inland Revenue Report, for the year ended 30th June, 1888—  
*Printed for both Distribution and Sessional Papers.*
- 4b.** Fourteenth Report on Inspection of Weights, Measures and Gas, being Supplement No. 2 to the Report of the Department of Inland Revenue, 1888. Presented to the House of Commons, 19th March, 1889, by Hon. J. Costigan.....*Printed for both Distribution and Sessional Papers.*
- 4c.** Report on Adulteration of Food, being Supplement No. 3 to the Report of the Department of Inland Revenue, 1888. Presented to the House of Commons, 30th April, 1889, by Hon. M. Bowell.....*Printed for both Distribution and Sessional Papers.*

### CONTENTS OF VOLUME No. 5.

5. Report of the Minister of Agriculture for the Dominion of Canada, for the calendar year 1888. Presented to the House of Commons, 15th February, 1889, by Hon. J. Carling—  
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- 5a. Report on Canadian Archives, 1888. Presented to the House of Commons, 21st March, 1889, by Hon. J. Carling.....*Printed for both Distribution and Sessional Papers.*

### CONTENTS OF VOLUME No. 6.

- 5b. Reports of the Director and Officers of the Experimental Farms, for the year 1888. Presented to the House of Commons, 21st March, 1889, by Hon. J. Carling—  
*Printed for both Distribution and Sessional Papers.*
- 5c. Criminal Statistics for the year 1887. Presented to the House of Commons, 1st May, 1889, by Hon. J. Carling.....*Printed for both Distribution and Sessional Papers.*
- 5d. Report of the High Commissioner for Canada, with Reports from Agents in the United Kingdom, for the year 1888. Presented to the House of Commons, 21st March, 1889, by Hon. J. Carling—  
*Printed for both Distribution and Sessional Papers.*
- 5e. Abstracts of the Returns of Mortuary Statistics for the year 1888—  
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6. Report of the Secretary of State of Canada for the year ended 31st December, 1888. Presented to the House of Commons, 11th February, 1889, by Sir Hector Langevin—  
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- 6a. Report of the Board of Examiners for the Civil Service of Canada, for the year ended 31st December, 1888. Presented to the House of Commons, 21st March, 1889, by Sir Hector Langevin.....*Printed for both Distribution and Sessional Papers.*
- 6b. The Civil Service List of Canada, 1888. Presented to the House of Commons, 3rd April, 1889, by Sir Hector Langevin.....*Printed for both Distribution and Sessional Papers.*
- 6c. Report of the Department of Public Printing and Stationery for the Dominion of Canada, for year ending 30th June, 1888. Presented to the House of Commons, 27th February, 1889, by Hon. M. Bowell.....*Printed for both Distribution and Sessional Papers.*

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- 7a. Report of the Chairman of the Board of Steamboat Inspection, for calendar year ended 31st December, 1888.....*Printed for both Distribution and Sessional Papers.*
8. Annual Report of the Department of Fisheries, for the year 1888. Presented to the House of Commons, 11th April, 1889, by Hon. C. H. Tupper—  
*Printed for both Distribution and Sessional Papers.*
- 8a. Report on the Fisheries Protection Service of Canada, 1888. Presented to the House of Commons, 4th March, 1889, by Hon. C. H. Tupper—  
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9. Annual Report of the Minister of Public Works of Canada, for the fiscal year 1887-88, on the works under his control. Presented to the House of Commons, 1st February, 1889, by Sir Hector Langevin.....*Printed for both Distribution and Sessional Papers.*
10. Annual Report of the Minister of Railways and Canals, for the past fiscal year, from the 1st July, 1887, to the 30th June, 1888, on the works under his control. Presented to the House of Commons, 21st February, 1889, by Sir John A. Macdonald—  
*Printed for both Distribution and Sessional Papers.*

- 10a.** Reports, Railway Statistics of Canada, and Capital, Traffic and Working Expenditure of the Railways of the Dominion, 1888. Presented to the House of Commons, 17th April, 1889, by Sir John A. Macdonald.....*Printed for both Distribution and Sessional Papers.*

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- 11.** Report of the Superintendent of Insurance, for the year ended 31st December, 1888—  
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- 11a.** Preliminary Abstract of the business of Canadian Life Insurance Companies for the year ending 31st December, 1888. Presented to the House of Commons, 4th February, 1889, by Hon. G. E. Foster.....*Printed for both Distribution and Sessional Papers.*
- 11b.** Abstracts of Statements of Insurance Companies in Canada for year ending 31st December, 1888. Presented to the House of Commons, 26th April, 1889, by Hon. G. E. Foster—  
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- 12.** Report of the Minister of Justice as to Penitentiaries in Canada, for the year ended 30th June, 1888. Presented to the House of Commons, 18th February, 1889, by Sir John Thompson—  
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- 12a.** Copies of the several tenders sent in for supplies for the Manitoba Penitentiary during the fiscal year 1887-88, with correspondence in relation thereto. Presented to the House of Commons, 25th February, 1889, by Sir John Thompson.....*Not printed.*
- 13.** Annual Report of the Department of Militia and Defence of the Dominion of Canada, for the year ended 31st December, 1888. Presented to the House of Commons, 4th February, 1889, by Sir Adolphe Caron.....*Printed for both Distribution and Sessional Papers.*

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- 14.** Report of the Postmaster General for the year ended 30th June, 1888. Presented to the House of Commons, 5th February, 1889, by Hon. J. G. Haggart—  
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- 15.** Annual Report of the Department of the Interior, for the year 1888. Presented to the House of Commons, 27th February, 1889, by Hon. E. Dewdney—  
*Printed for both Distribution and Sessional Papers.*
- 15a.** Summary of Reports on the London, Crofter, Scandinavian, Hungarian, Church, German and Icelandic Colonies. Presented to the House of Commons, 30th April, 1889, by Hon. E. Dewdney .....*Printed for both Distribution and Sessional Papers.*

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- 16.** Annual Report of the Department of Indian Affairs for the year ended 31st December, 1888. Presented to the House of Commons, 7th February, 1889, by Hon. E. Dewdney—  
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- 17.** Report of the Commissioner of the North-West Mounted Police Force, 1888. Presented to the House of Commons, 18th February, 1889, by Sir John A. Macdonald—  
*Printed for both Distribution and Sessional Papers.*

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- 18.** List of Shareholders in the Chartered Banks of the Dominion of Canada, as on the 31st December, 1888. Presented to the House of Commons, 27th February, 1889, by Sir John A. Macdonald .....*Printed for both Distribution and Sessional Papers.*
- 19.** Report of the Joint Librarians of Parliament on the state of the Library of Parliament. Presented to the House of Commons, 31st January, 1889, by Hon. Mr. Speaker—  
*Printed for Sessional Papers only.*
- 20.** Report of Simeon Jones, Esq., Commissioner to South America, with respect to the Argentine Republic, Uruguay and Brazil. Presented to the House of Commons, 5th February, 1889, by Hon. G. E. Foster .....*Printed for both Distribution and Sessional Papers.*



- 21.** Return to an Order of the House of Commons, dated 9th April, 1888, for a copy of report of engineers and surveyors appointed to survey the Straits of Northumberland from Carleton Point, Prince Edward Island, to Cape Jourimain, New Brunswick, during the summer of 1887, with the view of ascertaining the practicability of building a subway across the Straits. Presented to the House of Commons, 4th February, 1889.—*Mr. Perry*.....*Not printed.*
- 22.** Return to an Order of the House of Commons, dated 7th May, 1888, for copies of all correspondence and telegrams between the Department of Railways and Messrs. Sims and Slater, contractors for the eastern section of the Cape Breton Railway, between the Grand Narrows and Sydney. Presented to the House of Commons, 4th February, 1889.—*Mr. Flynn*.....*Not printed.*
- 22a.** Return to an Order of the House of Commons, dated 9th April, 1888, for copies of all papers, documents, telegrams and correspondence in connection with the land grant to the Souris and Rocky Mountain Railway Company, or relating to the construction of said railway. Presented to the House of Commons, 4th February, 1889.—*Mr. Edgar*.....*Not printed.*
- 22b.** Return to an Order of the House of Commons, dated 9th April, 1888, for copies of all papers, documents, telegrams and correspondence in connection with the land grant to the North-West Central Railway Company, or relating to the construction of the said railway. Presented to the House of Commons, 4th February, 1889.—*Mr. Edgar*.....*Not printed.*
- 22c.** Return to an Order of the House of Commons, dated 9th April, 1888, for copies of all papers, documents, telegrams and correspondence as to the incorporation of the Great North-West Central Railway Company, or relating to any land grant thereto, or to the construction of the line of the said railway or any part thereof. Presented to the House of Commons, 4th February, 1889.—*Mr. Edgar*.....*Not printed.*
- 22d.** Return to an Order of the House of Commons, dated 6th February, 1889, for copies of all petitions, reports and other documents in relation to the granting of subsidies by the Dominion Government, to the proposed line of railway from Montreal to Lévis, known as the Great Eastern. Presented to the House of Commons, 26th February, 1889.—*Mr. Rinfret*—*Not printed.*
- 22e.** Return to an Order of the House of Commons, dated 6th February, 1889, for a Return showing :  
1. A list of all the present shareholders of the Témiscouata Railway Company. 2. The number of shares held by each shareholder. 3. The amount paid by each of them on their respective shares. Presented to the House of Commons, 7th February, 1889.—*Mr. Dessaint*—*Not printed.*
- 22f.** Return to an Order of the House of Commons, dated 13th February, 1889, for a Return of all correspondence between the Grand Trunk Railway authorities and the Government respecting the subsidy granted for the completion of the line of the Belleville and North Hastings Railway Company from the village of Madoc to Eldorado, in the North Riding of Hastings, and in reference to the work done towards the completion of such work and respecting the acceptance and opening up the same for traffic. Presented to the House of Commons, 8th March, 1889.—*Mr. Burdett*.....*Not printed.*
- 22g.** Return to an Address of the House of Commons, to His Excellency the Governor General, dated 11th March, 1889, for copies of an agreement of 14th December, 1885, between the Dominion Government and the International Railway Company, for the construction of a line of railway from the south bank of the St. Lawrence river, at or near Caughnawaga, to harbors of St. Andrews, St. John and Halifax, *via* Sherbrooke, Moosehead Lake, Mattawamkeag, Harvey, Fredericton, and through township of Salisbury to Moncton. Also for copies of any and all changes that may have been made in said agreement, and of the Orders in Council relating thereto. Also for copies of any and all transfers or assignments of said agreement or contract, and of all Orders in Council relating thereto. Presented to the House of Commons, 21st March, 1889.—*Mr. Kenny*.....*Printed for Distribution only.*
- 22h.** Return to an Address of the House of Commons, to His Excellency the Governor General, dated 1st April, 1889, for copies of all Orders in Council, correspondence, agreements and settlements, respecting the conveyance of the North Shore Railway to the Government by the Grand Trunk Railway Company, and by the Government to the Canadian Pacific Railway Company. Presented to the House of Commons, 12th April, 1889.—*Mr. Rinfret*.....*Not printed.*
- 22i.** Return to an Order of the House of Commons, dated 1st April, 1889, for: 1. Copies of the petition asking for the incorporation of the Témiscouata Railway Company. 2. Copies of all correspondence between the Government and this company respecting the granting of a subsidy or having reference to such subsidy. Presented to the House of Commons, 17th April, 1889.—*Mr. Dessaint*.....*Not printed.*

- 22j.** Return to an Order of the House of Commons, dated 1st April, 1889, for a Return of the survey made of the Annapolis and Liverpool Railway, with the report of the engineer, and all papers and correspondence connected therewith. Presented to the House of Commons, 22nd April, 1889.—*Mr. Jones (Halifax)*.....*Not printed.*
- 22k.** Return to an Order of the House of Commons, dated 11th April, 1889, for all papers, reports, returns and correspondence in reference to the condition of the railway subsidized by the Parliament of Canada, extending from the western end of the Derby Branch Railway to a connection with the Northern and Western Railway, in the county of Northumberland, New Brunswick; also all correspondence, &c., had between the Government, or any of its officers, and the proprietors of the said railway, with the object of opening it up and running trains thereon. Presented to the House of Commons, 25th April, 1889.—*Mr. Mitchell*....*Not printed.*
- 22l.** Return to an Address of the House of Commons, to His Excellency the Governor General, dated 11th March, 1889, for copies of all correspondence between the Government and the Windsor and Annapolis and Western Counties Railway Companies relating to the consolidation, under Government control, of the railways of western Nova Scotia, together with copies of resolutions adopted by the Chamber of Commerce of Halifax, and the Fruit Growers' Association of Nova Scotia, referring to the same subject. Presented to the House of Commons, 25th April, 1889.—*Mr. Borden*.....*Not printed.*
- 22m.** Papers, correspondence, &c., respecting subsidies to certain railway companies, and towards the construction of certain railways, as follows:—St. Césaire to St. Paul d'Abbotsford Railway; Quebec and Murray Bay Railway; South Ontario Pacific Railway; Kingston, Smith's Falls and Ottawa Railway Company; Lake Témiscamingue Railway Company, Mattawa to foot of Long Sault; Shuswap and Lake Okanagan Railway; Chicoutimi Railway; St. Catharines and Niagara Central Railway Company; Grand Trunk, Georgian Bay and Lake Erie Railway Company; Hereford Railway Company; Quebec, Montmorency and Charlevoix Railway; Cornwallis Valley Railway Company; St. Clair Tunnel Company; Drummond County Railway; Pontiac and Renfrew Railway Company; Massawippi Junction Railway; Great Eastern Railway Company; Gananoque, Perth and James' Bay Railway Company, and Thousand Islands Railway Company; Brockville, Westport and Sault Ste. Marie Railway Company; Maskinongé and Lake Nipissing Railway; Napanee, Tamworth and Quebec Railway Company; Joggins Railway Company. Presented to the House of Commons, 29th April, 1889, by Sir John A. Macdonald .....*Printed for Sessional Papers only.*
- 22n.** Copy of the Prospectus of the Chignecto Marine Transport Railway Company, as published in the *London Times*, 19th March, 1889. Presented to the House of Commons, 30th April, 1889, by Hon. G. E. Foster .....*Not printed.*
- 23.** Return to an Order of the House of Commons, dated 16th April, 1888, for a Return of all correspondence, petitions, reports of engineers, and others, regarding the construction of a harbor of refuge at Wellington, Lake Ontario. Presented to the House of Commons, 4th February, 1889.—*Mr. Platt*.....*Not printed.*
- 23a.** Return to an Order of the House of Commons, dated 8th February, 1889, for a copy of engineer's last report on the feasibility of constructing a harbor at Naufrage, King's County, Prince Edward Island. Presented to the House of Commons, 14th March, 1889.—*Mr. McIntyre*—*Not printed.*
- 23b.** Return to an Address of the House of Commons, to His Excellency the Governor General, dated 1st April, 1889, for copies of all correspondence between the Dominion Government and the Corporation of Pilots for and below the harbor of Quebec, respecting the change in the present tariff of pilotage dues on vessels for and below the harbor of Quebec. Presented to the House of Commons, 26th April, 1889.—*Mr. Guay*.....*Not printed.*
- 24.** Return to an Order of the House of Commons, dated 16th April, 1888, for a Return of all tenders received by the Government for the supply of coal during the past calendar year, the names of successful tenderers, and the rate per ton in all contracts for coal entered into by the Government during the same period. Presented to the House of Commons, 4th February, 1889.—*Mr. Guillet*.....*Not printed.*
- 25.** Return to an Address of the House of Commons, to His Excellency the Governor General, dated 30th April, 1888, for copies of all correspondence, Orders in Council, reports, papers and documents touching the seizure made on F. O. Vallerand, at Quebec. Presented to the House of Commons, 4th February, 1889.—*Mr. Langelier (Quebec Centre)*.....*Not printed.*



- 25a. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 30th April, 1888, for copies of all correspondence, Orders in Council, papers and documents respecting the seizure of diamonds and other precious stones effected at Quebec on one David Levi, and the cancelling of the said seizure. Presented to the House of Commons, 4th February, 1889.—*Mr. Langelier (Quebec Centre)*..... *Not printed.*
26. Statement of Governor General's Warrants issued and expenditure made under same, since last Session of Parliament, in accordance with Consolidated Revenue and Audit Act, sec. 32, sub-section 2. Presented to the House of Commons, 4th February, 1889, by Hon. G. E. Foster..... *Not printed.*
27. Statement of all superannuations and retiring allowances in the Civil Service, giving the name and rank of each person superannuated or retired, his salary, age and length of service, his allowance and cause of retirement, whether vacancy has been filled by promotion or new appointment, &c., for year ended 31st December, 1888. Presented to the House of Commons, 4th February, 1889, by Hon. G. E. Foster..... *Printed for Sessional Papers only.*
28. Statement of Expenditure under authority of 51 Victoria, cap. 1, on account of Miscellaneous Unforeseen Expenses, from 1st July, 1888, to 31st January, 1889. Presented to the House of Commons, 4th February, 1889, by Hon. G. E. Foster..... *Not printed.*
29. Report of the Commissioner, Dominion Police, under Revised Statutes of Canada, chapter 184, section 5. Presented to the House of Commons, 1st February, 1889, by Sir John Thompson  
*Not printed.*
30. Return to an Address of the Senate, to His Excellency the Governor General, dated 8th May, 1888, for copies of all Orders in Council, resolutions, correspondence or other documents on the subject of the granting of any subsidy or aid to the Pontiac Pacific Junction Railway Company. Presented to the Senate, 6th February, 1889.—*Hon. Mr. Trudel*..... *Not printed.*
31. List of Public Officers to whom Commissions have issued under the provisions of chapter 19 of the Revised Statutes of Canada, during the year 1888. Presented to the House of Commons, 11th February, 1889, by Sir Hector Langevin..... *Not printed.*
32. Return to an Order of the House of Commons, dated 6th February, 1889, for a Return of the Receipts and Expenditures, in detail, chargeable to the Consolidated Fund, from the 1st day of July, 1888, to 1st February, 1889, with comparative statement of the same from 1st July, 1887, to 1st February, 1888. Presented to the House of Commons, 12th February, 1889 —*Sir Richard Cartwright*..... *Not printed.*
33. Return to an Order of the House of Commons, dated 6th February, 1889, for copies of all papers and documents furnished the Government by the Board of Examiners in connection with the recent examinations of candidates for the office of Hide and Leather Inspector in the city of Montreal. Presented to the House of Commons, 12th February, 1889.—*Mr. Curran*—  
*Not printed.*
34. Copy of Order in Council making certain regulations under the provisions of chapter 121 of the Revised Statutes of Canada, respecting Government Savings Banks. Presented to the House of Commons, 12th February, 1889, by Hon. G. E. Foster..... *Not printed.*
35. Detailed statement of all Bonds or Securities registered in the Department of the Secretary of State of Canada, submitted to the Parliament of Canada under section 23, chapter 19, of the Revised Statutes of Canada. Presented to the House of Commons, 14th February, 1889, by Sir Hector Langevin..... *Not printed.*
36. Return (*in part*) under Resolution of the House of Commons, passed on the 20th February, 1882, on all subjects affecting the Canadian Pacific Railway, respecting details as to: 1. The selection of the route. 2. The progress of the work. 3. The selection or reservation of land. 4. The payment of moneys. 5. The laying out of branches. 6. The progress thereon. 7. The rates of tolls for passengers and freight. 8. The particulars required by the Consolidated Railway Act and amendments thereto, up to the end of the previous fiscal year. 9. Like particulars up to the latest practicable date before the presentation of the Return. 10. Copies of all Orders in Council and all correspondence between the Government and the railway company, or any member or officer of either, relating to the affairs of the company. Presented to the House of Commons, 15th February, 1889, by Hon. E. Dewdney—  
*Printed for Sessional Papers only.*
- 36a. An agreement with the Canadian Pacific Railway Company for the performance of a railway service in the province of New Brunswick. Presented to the House of Commons, 22nd April, 1889, by Sir John A. Macdonald..... *Printed for Sessional Papers only.*

- 36b.** Supplementary Return under Resolution of the House of Commons, passed on the 20th February, 1882, on all subjects affecting the Canadian Pacific Railway, respecting details as to: 1. The selection of the route. 2. The progress of the work. 3. The selection or reservation of land. 4. The payment of moneys. 5. The laying out of branches. 6. The progress thereon. 7. The rate of tolls for passengers and freight. 8. The particulars required by the Consolidated Railway Act, and amendments thereto, up to the end of the previous fiscal year. 9. Like particulars up to the latest practicable date before the presentation of the Return. 10. Copies of all Orders in Council and all correspondence between the Government and the Railway Company, or any member or officer of either, relating to the affairs of the Company. Presented to the House of Commons, 30th April, 1889, by Hon. E. Dewdney. *Printed for Sessional Papers only.*
- 37.** Return to an Order of the House of Commons, dated 8th February, 1889, for a Return showing: 1st. The full amount of legal and other expenses paid in connection with the suit, "The St. Catharines Milling and Lumbering Company *vs.* the Queen," from the commencement of the suit up to the 1st January, 1889. 2nd. The party or parties to whom paid, the amounts paid, and date of payment. Presented to the House of Commons, 19th February, 1889.—*Mr. McMullen*..... *Not printed.*
- 37a.** Return to an Address of the House of Commons to His Excellency the Governor General, dated 1st April, 1889, for all the original cheques given in payment of all fees or expenses connected with the suit, "The St. Catharines Milling and Lumbering Company *vs.* the Queen." Presented to the House of Commons, 17th April, 1889.—*Mr. McMullen*..... *Not printed.*
- 38.** Return to an Order of the House of Commons, dated 6th February, 1889, for a Return, in the form used in the statements usually published in the *Gazette*, of the exports and imports from the 1st day of July, 1888, to the 1st day of January, 1889, distinguishing the products of Canada and those of other countries, with comparative statement of the same from 1st July, 1887, to 1st January, 1888. Presented to the House of Commons, 19th February, 1889.—*Sir Richard Cartwright*..... *Not printed.*
- 39.** Return to an Order of the House of Commons, dated 8th February, 1889, for a Return showing the quantity of wheat and flour imported into the Dominion of Canada from the United States, and entered for consumption, during the six months ending 31st December, 1888; also the quantity of flour remaining in bond in Canada on the 31st December, 1888. Presented to the House of Commons, 19th February, 1889.—*Mr. McMullen*..... *Not printed.*
- 40.** Return to an Order of the House of Commons, dated 8th February, 1889, for a Return showing amounts received on account of loan recently negotiated, together with a statement of the sums (forming portion of the same) placed on deposit with Canadian or other banks since the 20th day of June, 1888, and the rate of interest agreed to be paid on the same. Presented to the House of Commons, 20th February, 1889.—*Sir Richard Cartwright*—  
*Printed for Distribution only.*
- 40a.** Statement of the affairs of the British Canadian Loan and Investment Company, on the 31st December, 1888. Presented to the House of Commons, 27th April, 1889, by Hon. Mr. Speaker..... *Not printed.*
- 41.** Return of the affairs of the Collingwood Marine and General Hospital for the year 1888. Presented to the House of Commons, 27th April, 1888, by Hon. Mr. Speaker..... *Not printed.*
- 42.** Return to an Order of the House of Commons, dated 7th May, 1888, for copies of all papers, plans, letters, reports, and other documents whatsoever in relation to the building of a pier or wharf at Ste. Anne des Monts, in the county of Gaspé. Presented to the House of Commons, 28th February, 1889.—*Mr. Joncas*..... *Not printed.*

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- 43.** Return to an Order of the House of Commons, dated 16th April, 1888, for a Return showing separately in regard to companies doing business under Dominion License, the amount of fire insurance at risk on the 31st December, for each of the years from 1881 to 1887, both inclusive, the number of policies in force, the total amount of cash paid each year and the total amount of expenses for each year, the percentage of losses and expenses to premium income, and the expense per \$1,000 at risk. Presented to the House of Commons, 28th February, 1889.—*Mr. Bowman*..... *Printed for both Distribution and Sessional Papers.*



435. Return to an Order of the House of Commons, dated 13th March, 1889, for copies of all correspondence between the Manufacturers' Insurance Company and the Superintendent of Insurance respecting the list of stockholders of said company furnished by the said company in accordance with the statute in that behalf. Presented to the House of Commons, 20th March, 1889.—*Mr. Lister* ..... *Not printed.*
44. Return to an Order of the House of Commons, dated 8th February, 1889, for copies of all correspondence between the Minister of the Interior and any officials of his Department, and Thomas Sioni and others, Indians of the Huron tribe of Lorette. Presented to the House of Commons, 28th February, 1889.—*Mr. Langelier (Montmorency)*..... *Not printed.*
- 44a. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return of all sales made of Indian lands on the west side of the Grand River, in the village of Cayuga, in the county of Haldimand; copies of all instructions given to the valuator of said lands, the reports of said valuator, and all correspondence and papers relating thereto. Presented to the House of Commons, 21st March, 1889.—*Mr. Colter*..... *Not printed.*
- 44b. Return to an Order of the House of Commons, dated 1st April, 1889, for copies of all tenders for the supply of beef for the Blackfeet, Blood and Piegan Indian Agencies, and all papers and correspondence connected with the calling for such tenders, and the awarding of contracts for such supplies during the summer of 1888. Presented to the House of Commons, 18th April, 1889.—*Mr. Edgar*..... *Not printed.*
- 44c. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 1st April, 1889, for copies of all correspondence since the 1st of January, 1888, between the Government of the Dominion and the province of Ontario, relating to the arrears of annuities due to the Indians who surrendered their lands under the Robinson Treaty, and to the grant of a reserve to the Chippewa Band of Lake Temiscamingue. Presented to the House of Commons, 30th April, 1889.—*Mr. O'Brien*..... *Not printed.*
45. Return to an Order of the House of Commons, dated 8th February, 1889, for a Return showing the amount, respectively, of pine and spruce sawlogs, board measure, exported in each year from 1867 to 30th June, 1888; the amount of export duty collected in each year from each class of logs; the rate of duty in each year upon each kind of logs, and the amount of export of each kind of logs, and the amount of duty collected upon the same, by provinces. Presented to the House of Commons, 1st March, 1889.—*Mr. Charlton*..... *Not printed.*
- 45a. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return of amount of export duty collected or paid on sawlogs and on other lumber in the year 1888, specifying at what custom house such duty was paid, and the respective amounts paid at each custom house. Presented to the House of Commons, 12th March, 1889.—*Mr. Weldon (St. John)*..... *Not printed.*
- 45b. Supplementary Return to an Order of the House of Commons, dated 16th April, 1888, for a statement showing total cost of construction of various works for the descent of timber and sawlogs on the Ottawa river and its tributaries, up to the 30th June last; also statements showing the yearly expenditure for the maintenance of the said works for five years preceding the 30th June last, under the different heads of reconstruction, repairs and cost of management, at each of the stations, with the names of river or tributary where the same was expended; likewise copies of any or all applications, whether from individuals or chartered companies, to acquire by purchase or otherwise all or any portion of said works and improvements on the said Ottawa river and tributaries thereof. Presented to the House of Commons, 21st March, 1889.—*Mr. Amyot*. Presented to Senate, 22nd March, 1889.—*Hon. Mr. Clemow*... *Not printed.*
46. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 6th February, 1889, for copies of all Orders in Council, reports, correspondence and papers relating to the dismissal of the Hon. William Ross from the Collectorship of Customs at the port of Halifax. Presented to the House of Commons, 1st March, 1889.—*Hon. W. Laurier*..... *Not printed.*
- 46a. Return to an Order of the House of Commons, dated 20th March, 1889, for a Return of all correspondence between the Minister of Marine and Fisheries, Ottawa, and A. Lord, Esq., Agent, Charlottetown, Prince Edward Island, or any other person, having reference to the dismissal of Capt. Ronald Campbell, Harbor Master for Summerside. Also copy of all complaints made against the said Capt. Ronald Campbell, showing by whom made, with copy of evidence touching said dismissal. Presented to the House of Commons, 8th April, 1889.—*Mr. Perry*..... *Not printed.*

47. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 25th February, 1889, for copies of all Orders in Council, correspondence and other documents respecting the disallowance of Acts passed by the province of Quebec in 1887. Presented to the House of Commons, 7th March, 1889.—*Mr. Langelier (Montmorency)*..... *Not printed.*
- 47a. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 25th February, 1889, for copies of all Orders in Council, correspondence and other documents in relation to the disallowance of the Act for the conversion of the debt. Presented to the House of Commons, 20th March, 1889.—*Mr. Langelier (Montmorency)*.—*Not printed.*
- 47b. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 25th February, 1889, for copies of all Orders in Council, correspondence and other documents respecting the disallowance of the Act respecting the Bar of the province of Quebec, passed in 1889; in which Act the *Battonnier Général* was granted precedence over all other lawyers. Presented to the House of Commons, 21st March, 1889.—*Mr. Langelier (Montmorency)*..... *Not printed.*
- 47c. Return (*in part*) to an Address of the House of Commons, to His Excellency the Governor General, dated 25th February, 1889, for copies of all Orders in Council, correspondence and other documents in relation to the disallowance of the Act respecting magistrates. Presented to the House of Commons, 21st March, 1889.—*Mr. Langelier (Montmorency)*.—*Not printed.*
48. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return showing the date at which Mr. Speaker received the certificate of the Judge in each of the following cases—in the election trial of Halton, Shelburne, Northumberland (East), Haldimand, Joliette, Cumberland and Kent; the date of the Speaker's warrant, and the date of the writ for a new election. Presented to the House of Commons, 8th March, 1889.—*Mr. Mills (Bothwell)*..... *Not printed.*
49. Return to an Order of the House of Commons, dated 25th February, 1889, for copies of all correspondence with the Department of Railways and Canals on the subject of the late break in the Cornwall Canal, and of all plans and suggestions by civil engineers and others for the prevention of the recurrence of such break, and the report of John Page, the Chief Engineer of Canals, thereon. Presented to the House of Commons, 8th March, 1889.—*Mr. Bergin*.—*Printed for both Distribution and Sessional Papers.*
- 49a. Return to an Order of the House of Commons, dated 25th February, 1889, for copies of all reports of the engineers and other officers employed by the Department of Railways and Canals on the subject of water power in the new Welland Canal. Presented to the House of Commons, 14th March, 1889.—*Mr. Rykert*..... *Not printed.*
- 49b. Return to an Order of the House of Commons, dated 25th February, 1889, for copies of the several tenders and all papers, letters and contract for the construction of the Sault Ste. Marie Canal. Presented to the House of Commons, 19th March, 1889.—*Mr. McMullen*.—*Not printed.*
- 49c. Return to an Order of the House of Commons, dated 25th February, 1889, for copies of all the correspondence with the Department of Railways and Canals in connection with the opening of the canals of the Dominion for Sunday traffic. Also a statement of the number of steamboats and vessels passing through the several canals between the date of the order permitting the same and the close of navigation in the year 1888. Also copies of all instructions to the superintendents of the several canals. Presented to the House of Commons, 29th March, 1889.—*Mr. Rykert*..... *Not printed.*
- 49d. Return to an Address of the Senate to His Excellency the Governor General, dated 26th March, 1888, praying that His Excellency will cause to be laid before this House, a detailed statement of all expenditure in maintaining, repairing, and operating the Welland Canal for the years 1870, 1877, 1885, 1886, 1887, and to the first day of January, 1888, giving the names of all employees, the amount paid each as salary or wages, the number of days each was employed, keeping each month separate, the amount of allowance, if any, for house rent, horse hire or travelling expenses to superintendent, deputy superintendents, foremen or overseers, also the duties performed by each employee, and hour, and where employed; if deputy superintendents, giving that portion of canal under the charge of each; if foremen or overseers, giving on what part or section of canal they are employed; if lock masters, giving the number of lock; if bridge tender, giving the name of bridge; if carpenters, masons or laborers,



giving the division or portion of canal on which employed, keeping separate the expenditure and names of employees on what is known as the old and the new canal as far as possible. Also copies of all time-lists, pay-lists, and vouchers used in paying the employees, keeping each month separate for the above-named years. Also copies of all tenders received by the Government for the erection of the custom house and post office building at Port Colborne. Also copies of plans and specifications, and a detailed statement of material used in, and the cost of erecting the said building in the year 1887. Also copies of all correspondence between the Minister of Railways and Canals, or any officer of his Department, and the Superintendent of the Welland Canal, giving instructions for erecting the custom house and post office at Port Colborne. Also copies of all correspondence and of plans and specifications and instructions to the Superintendent of the Welland Canal by the Minister of Railways and Canals, or any officer of that Department, for the erection of a wharf or dock west of the lock in Port Colborne. Also a detailed statement of the material used and cost of said wharf or dock. Also giving the purposes said wharf or dock was built for, and what it is used for. Also a detailed statement of the cost of wrecking pump purchased for the Welland Canal, giving the date of purchase, the number of days the said pump has been used in each year, and date of such service for canal purposes; if for private purposes, giving the date of such service and the amount received by the Government for such service. Also giving a detailed statement of the cost of diving armor purchased for the Welland Canal, and giving the number of days it has been used and date of such service in each year. Also giving a detailed statement of the amount received by the Government for the use of said diving armor when used for private purposes and not for the Government service. Presented to the Senate, 5th April, 1889.—*Hon. Mr. McCallum* ..... *Printed (in part) for Sessional Papers only.*

49c. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 1st April, 1889, for copies of all tenders received for the construction of the Sault Ste. Marie Canal, with accompanying documents, including the approximate quantities on which such tenders were computed, and the gross amounts; and all correspondence, reports and Orders in Council, in relation to the same. Presented to the House of Commons, 12th April, 1889.—*Mr. Trow*..... *Not printed.*

49f. Return to an Order of the House of Commons, dated 18th March, 1889, for copies of reports, plans and surveys of the then proposed Cornwall Canal by J. B. Mills and Benjamin Wright, Esq's, Civil Engineers and by Capt. P. Cole, Royal Engineers, in the years 1832, 1833 and 1834; also for survey and report of Colin Carman, Esq., C.E., of a proposed change of location of Cornwall Canal, from Sand Bridge through Hoopes Creek to Archibald's Point, with plans, profile and estimates; also reports, plans and surveys made by Mr. Clowes, C.E., in 1826. Presented to the House of Commons, 17th April, 1889.—*Mr. Berghin*—  
*Printed for both Distribution and Sessional Papers.*

49g. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return of report of Engineer Crawford in 1877-78 and all subsequent reports made on the Beauharnois Canal; also reports of engineers made on the North Shore of the St. Lawrence between lakes St. Francis and St. Louis; also resolutions, letters, &c., of boards of trade, corporations, and even from individuals, regarding such works. Presented to the House of Commons, 17th April, 1889.—*Mr. Bergeron*..... *Not printed.*

49h. Return to an Order of the House of Commons, dated 13th March, 1889, for a Return showing :  
1. Statement of cases in which all or any of the tenders called for and received within five years, for any work in connection with canals, were rejected on the report of the Chief Engineer of Canals, giving names of tenderers and gross amount of each tender; with copies of all such reports of the Chief Engineer, giving reasons for such rejection, and noting the cases in which new tenders were called for. 2. In cases where new tenders were called for, a statement of names of tenderers and gross amount of each tender, noting which tender was accepted, and giving copies of any reports or other reasons for the rejection of lower tenders, if any. 3. Statement of cases in which claims for extras have arisen and have been referred to the sole arbitration of the Chief Engineer of Canals, showing amounts paid to claimants under his award, and a detailed statement of costs paid by the Government or the other parties to the suit in connection with the arbitration in each case, and to whom paid. Presented to the House of Commons, 17th April, 1889.—*Mr. Casey*..... *Not printed.*



- 49i. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 1st April, 1889, for copies of all tenders received by the Department of Railways and Canals, in September and October, 1888, for the enlargement of the Cornwall and Galopps Canal, including the approximate quantities on which such tenders were computed, and the gross amounts; and all correspondence, reports, and orders in Council, relating to the same, since the receipt of such tenders. Presented to the House of Commons, 25th April, 1889.—*Mr. Trow*.....*Not printed.*
50. Copies of General Orders No. 84 and No. 85, of the Supreme Court of Canada. Presented to the House of Commons, 14th March, 1889, by Sir John Thompson—  
*Printed for Distribution only.*
51. Return to an Order of the House of Commons, dated 25th February, 1889, for copies of all correspondence, reports, &c., between the officials of the Intercolonial Railway and Mr. Louis Fortin, of St. Octave de Méti, in relation to the killing of a horse by the cars in October, 1888. Presented to the House of Commons, 15th March, 1889.—*Mr. Fiset*.....*Not printed.*
- 51a. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 1st April, 1889, for a Return of Orders in Council relating to the division of the subsidy of \$250,000 to the International Railway Company, between the different portions of the road, say, from the St. Lawrence to Lennoxville, from Lennoxville to Moose River and Mattawamkeag, from Mattawamkeag to Harvey's Station, and from Harvey to Salisbury, giving the number of miles in each division, and the amount apportioned thereto. Presented to the House of Commons, 12th April, 1889 —*Mr. Jones (Halifax)*—  
*Order in Council printed, for Sessional Papers only.*
- 51b. Return to an Order of the House of Commons, dated 8th April, 1889, for copies of all correspondence between Mr. Allan Knight, or his solicitor, with the Government of Canada, or any of its officers, in reference to a claim for damages in connection with the Indian Town branch of the Intercolonial Railway, and also any report from any of the Government officers in reference to the same subject. Presented to the House of Commons, 29th April, 1889.—*Mr. Mitchell*.....*Not printed.*
- 51c. Return to an Order of the House of Commons, dated 11th April, 1889, for copies of all letters, reports and correspondence had between Mr. George R. Parker and the Government, or any of its officers; and also between the Government and its officers, in relation to claims for land, and damages, in connection with the Derby Branch Railway. Presented to the House of Commons, 29th April, 1889.—*Mr. Mitchell*.....*Not printed.*
52. Return to an Order of the House of Commons, dated 6th February, 1889, for a Return of the names of all chaplains of public institutions under appointment of the Government, together with the dates of their appointment, the amount of their salaries, and the religious denominations to which they belong. Presented to the House of Commons, 15th March, 1889.—*Mr. Innes*.....*Not printed.*
53. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return showing what sums of money have been paid by the Government to W. A. Webster during each of the financial years, 1887 and 1888, and since the 1st July, 1888, specifying the services for which he was paid. Presented to the House of Commons, 18th March, 1889.—*Mr. Collier*—  
*Not printed.*
54. Copy of the Bill, 51-52 Victoria, chapter 13, Quebec, intituled: "An Act respecting the settlement of the Jesuits' Estates;" copies of the report made on the 16th January last, or any other date, to His Excellency the Governor General upon the said Act; all Orders in Council, reports, opinions or other papers showing the consideration and conclusion arrived at by the Government in regard to the said Act; all correspondence in relation to the said Act had between the Government and the Government of the Province of Quebec, or any other person or persons whomsoever; as well as all petitions or written representations made to the Government for or against the said Act becoming law, and showing at what date the said Bill was received by the Government and approved of by them. Presented to the House of Commons, 19th March, 1889, by Sir John A. Macdonald—  
*Printed for both Distribution and Sessional Papers.*

55. Return to an Order of the House of Commons, dated 4th March, 1889, for a Return of copies of all petitions presented to the Government by the residents of the townships of the front of Yonge and the front of Escott, in the county of Leeds, Ontario, praying that an Act passed by the Local Legislature of the province of Ontario, assented to the 23rd March, 1888, intituled: "An Act to provide for the union of the townships of the front of Yonge and front of Escott," might be disallowed. Presented to the House of Commons, 19th March, 1889.—*Mr. Taylor*—*Not printed.*
56. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 11th March, 1889, for a statement or Return of the Government in answer to the request of the Home Government for information as to the working of "The Canada Temperance Act" in the several provinces of the Dominion. Presented to the House of Commons, 19th March, 1889.—*Mr. Jamieson* ..... *Not printed.*
57. Return to an Order of the House of Commons, dated 8th February, 1889, for a Return showing what repairs have been done to the dredge "Prince Edward" during the year 1888, the date of commencement of work, and when finished, with cost of said work; also the amount of work done by said dredge during the year 1888. Presented to the House of Commons, 19th March, 1889.—*Mr. Perry* ..... *Not printed.*
58. Return to an Order of the House of Commons, dated 4th March, 1889, for a copy of the names of fishermen in Prince Edward Island who, for the years 1886 and 1887, have made claims for the fishery bounty, and whose claims have been rejected; also for copies of the reports of the officers or parties against such claims, and the names and residences of such officers or parties. Presented to the House of Commons, 19th March, 1889.—*Mr. McIntyre* ..... *Not printed.*
- 58a. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 13th February, 1889, for a Return of all correspondence between the Government of the Dominion and the Government of Ontario in respect to the expediency of permitting net fishing by white men in the inland waters of Ontario, north and north-west of Lakes Huron and Superior. Also of all correspondence between the Indian Department and any other department of the Government in regard to the distress and destitution which would be brought upon the resident Indian population by unrestricted net fishing in the waters from which they derive their chief means of subsistence. Presented to the House of Commons, 20th March, 1889.—*Mr. Dawson* ..... *Not printed.*
- 58b. Return to an Order of the House of Commons, dated 20th March, 1889, for: 1. Copies of any order or regulation adopted by the Department of Marine and Fisheries with a view to regulate fishing, and to put in force a system of licensing and taxing of fishing utensils in the counties of Berthier, Maskinongé, St. Maurice, Richelieu, Yamaska and Nicolet, during the two years ending 31st December, 1888. 2. Copies of all instructions forwarded during the period aforesaid to the fishery overseers having jurisdiction in the said counties, respecting the enforcement, suspension, modification or re-enactment of the said regulation. 3. Copies of all reports and information furnished by the fishery overseers to the Department of Marine and Fisheries in relation to the enforcement of the said regulation. 4. A list of all the fishermen of each of the said counties as furnished by the fishery overseers, showing those who took out the license so required, the amount paid by each of them, the total amount received as the product of the said licenses from the date of the enforcement of the said regulation up to 31st December, 1888, and also those who did not take out the license so required, and whose fishing utensils were confiscated or not, as the case may be. 5. Copies of all letters, petitions and correspondence addressed to the Government, or any of its members, asking for the repeal of the said regulation and the abolition of the said license, of all answers made thereto, and of all other documents relating to the matter. Presented to the House of Commons, 17th April, 1889.—*Mr. Beausoleil* ..... *Not printed.*
- 58c. Return to an Order of the House of Commons, dated 1st April, 1889, for copies of correspondence between the Government and the holders of fishing rights under permit in river Matane, and of correspondence on the same subject with the riparian proprietors, and reports on their opposition to permits, &c. Presented to the House of Commons, 30th April, 1889.—*Mr. Casgrain* ..... *Not printed.*
59. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return showing: 1. In what ports of the Dominion the Government collect hospital dues on ships. 2. What amount was collected in each of the said ports during last season. 3. How many seamen



- were under treatment in each of the said ports during the season. 4. How much the Government have paid to the hospitals of the several ports during last season. Presented to the House of Commons, 21st March, 1889.—*Mr. Lépine*.....*Not printed.*
60. Continuation of the correspondence as published in the Auditor-General's Report, on the subject of carrying forward the gross amount of the Loan and Sinking Fund of the Consolidated Canadian Loan Converted. Presented to the House of Commons, 20th March, 1889, by Hon. G. E. Foster.....*Not printed.*
61. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 11th March, 1889, for copies of all correspondence between the Government and the Lieut.-Governor of the North-West Territories, together with any papers, reports and documents in reference to the issue of permits or licenses for the sale of spirituous liquors, beer or other intoxicants, in public houses or otherwise in the North-West Territories; also copies of all regulations, documents or other proceedings issued or adopted by the Lieut.-Governor of the North-West Territories, under which licenses or permits for the sale of beer or other intoxicants in public houses have been granted in the said Territories. Presented to the House of Commons, 21st March, 1889.—*Mr. Jamieson*.....*Not printed.*
62. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return showing the amount of money paid on account of work performed or material furnished for opening or improving public roads or streets in the city of Ottawa, from the 1st of July, 1888, to the 1st January, 1889; the names of the party or parties to whom paid, for what paid, and the amount; the name or names of all parties in charge as inspectors or superintendents, and amount per day or month paid to them. Presented to the House of Commons, 22nd March, 1889.—*Mr. McMullen*.....*Not printed.*
- 62a. Return to an Order of the House of Commons, dated 1st April, 1889, for copies of all petitions, correspondence and documents respecting the extension of McMahon Street through the Ordnance land, in the city of Quebec, to D'Aiguillon Street. Presented to the House of Commons, 2nd May, 1889.—*Mr. Guay*.....*Not printed.*
63. Return to an Order of the House of Commons, dated 20th February, 1889, for a Return showing the cost, to date, of the barn at the Experimental Farm, or of any and all other outbuildings upon the said farm, with a statement showing the number of outbuildings and their kind, if any; also the number of residences built on the farm and the cost of each one separately; likewise the sum total of the cost of all buildings upon said farm, to date. Presented to the House of Commons, 2nd April, 1889.—*Mr. McMillan (Huron)*.....*Not printed.*
64. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return showing public buildings erected in various places throughout the Dominion from 1st July, 1867, to 1st January, 1889; giving date of first appropriation made for same, locality in which erected, and total cost to date of 1st January, 1889. Presented to the House of Commons, 3rd April, 1889.—*Sir Richard Cartwright*.....*Printed for Sessional Papers only.*
65. Return to an Address of the House of Commons, to His Excellency the Governor General, dated 7th February, 1889, for copies of the Resolutions passed at the conference held in 1887, at the city of Quebec, of delegates from the several provinces of Ontario, Quebec, Nova Scotia, New Brunswick and Manitoba; and of all papers and correspondence relating thereto. Presented to the House of Commons, 3rd April, 1889.—*Mr. Elgar*.....*Not printed.*
66. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return showing the total amount of expense incurred and moneys paid up to 1st January, 1889, on account of the preparation, publication and completion: 1. Of the various lists under the Dominion Franchise Act upon which the last general election was held; and stating: (a) The total amount paid for printing; (b) The total amount paid to revising barristers; (c) The total amount paid to revising barristers, clerks and bailiffs; (d) The total amount paid for all other expenses in connection with preparation, publication and completion of the said lists; (e) Whether any claims against the Government in connection with the preparation of the lists are yet unsettled. 2. Showing the expense incurred up to 1st February, 1889, in connection with the preparation of the second voters' list under the Dominion Franchise Act, and stating: (a) The total cost of type used, or to be used, in setting up the lists; (b) The amount paid for composition in setting up the lists; (c) The cost of paper and presswork in preparation of the lists; (d) The cost or rental of plant used in connection with the preparation of said lists up to the above date; (e) Amount of all other expenses incurred in connection with the preparation of the said lists up to 1st February, 1889. Presented to the House of Commons, 3rd April, 1889.—*Mr. Charlton*.....*Printed for Sessional Papers only.*



67. Return to an Address of the Senate, to His Excellency the Governor General, dated 22nd March, 1889, praying that His Excellency will cause to be laid before this House, copies of leases or existing arrangements permitting the occupancy of the reserve of public property on the Ottawa River, from Bay to Kent Street, in the city of Ottawa. Presented to the Senate, 3rd April, 1889.—*Hon. Mr. Clemow*..... *Not printed.*
68. Return to an Address of the Senate, to His Excellency the Governor General, dated 19th March, 1889, for a list giving the names of the veterans of the war of 1812, actually living, with their place of residence and the amount of their respective pensions. Presented to the Senate, 10th April, 1889.—*Hon. Mr. Guévremont*—  
*Printed for both Distribution and Sessional Papers.*
69. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return of all evidence, papers and correspondence relating to the liability of the Government to construct, or to aid in constructing, a bridge across the Grand River, at the village of York, in the county of Haldimand. Presented to the House of Commons, 11th April, 1889.—*Mr. Colter*—  
*Not printed.*
- 69a. Return,—Correspondence, &c., in connection with tenders called for and received for bridge at Grand Narrows, Cape Breton Railway. Presented to the House of Commons, 17th April, 1889, by Sir John A. Macdougald..... *Not printed.*
- 69b. Return to an Order of the House of Commons, dated 11th March, 1889, for a Return of copies of all petitions presented to the Government by the residents of the township of the front of Young, county of Leeds, Ont., praying that Jones' Creek in said township be declared a non-navigable stream, and to allow the municipal council to build a low solid bridge across said stream. Also copies of the report of the engineer on the same. Presented to the House of Commons, 29th April, 1889.—*Mr. Taylor*..... *Not printed.*
70. Return to an Order of the House of Commons, dated 1st April, 1889, for copies of all correspondence, reports, petitions and other documents, up to this date, between the Post Office Department and the Post Office Inspector for the district of Montreal, Mr. King, and any other persons, respecting a change in the location of the post office of Belle Vallée, in the county of St. John's. Presented to the House of Commons, 17th April, 1889.—*Mr. Bourassa*.—  
*Not printed.*
71. Return to an Order of the House of Commons, dated 18th March, 1889, for a Return of all correspondence between the Government and the officers and men of the 15th Battalion, respecting aid to construct a drill shed at Belleville, and for any reports made to the Government respecting the desirability of granting such aid. Presented to the House of Commons, 2nd May, 1889.—*Mr. Burdett*..... *Not printed.*
72. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return showing the amount of duty collected upon baskets and boxes containing fruits admitted free of duty since 1st May, 1888. Presented to the House of Commons, 17th April, 1889.—*Mr. Charlton*..... *Not printed.*
73. General Rules of the Maritime Court of Ontario. Presented to the House of Commons, 20th April, 1889, by Sir John Thompson..... *Not printed.*
74. Return to an Address of the Senate, to His Excellency the Governor General, dated 1st April, 1889, praying that His Excellency will be pleased to cause to be laid before this House, a detailed statement showing the total annual cost for supplying the electric light for the use of the Intercolonial Railway and charging the cars with electricity at the respective stations of St. John and Halifax, and the names of the parties performing such service. Presented to the Senate, 23rd April, 1889.—*Hon. Mr. Botsford*..... *Not printed.*
75. Return to an Order of the House of Commons, dated 11th April, 1889, for copies of all papers and correspondence in connection with a claim of Messrs. A. and J. Adams for loss incurred by the wreck of their vessel, "Carrier Dove," caused by the change of lights at Crapaud Harbor, without due notice to the public. Presented to the House of Commons, 23rd April, 1889.—*Hon. Mr. Mitchell*..... *Not printed.*
76. Return to an Address of the Senate, to His Excellency the Governor General, dated 10th April, 1889, praying that His Excellency will be pleased to cause to be laid before this House, a copy of the report made to the Minister of Public Works, by the commissioners on the floods in the St. Lawrence River. Presented to the Senate, 25th April, 1889.—*Hon. Mr. Drummond*..... *Printed for both Distribution and Sessional Papers.*

77. Certified copy of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 5th September, 1888, relating to Appeals in Criminal Cases to the Judicial Committee of Her Majesty's Privy Council. Presented to the House of Commons, 26th April, 1889, by Hon. G. E. Foster.....*Printed for Sessional Papers only.*
78. Return to an Order of the House of Commons, dated 9th April, 1888, for copy of the correspondence having reference to the translation into French of the "Field Exercise," from 23rd July, 1879, which has passed between the Militia Department and Lieut.-Colonel A. Audet, and also between either of them and the manager of the Compagnie d'Imprimerie Canadienne of Montreal, Benjamin Sulte, Esquire, and Gebbart Berthiaume, and any other person in relation to the said translation. Presented to the House of Commons, 26th April, 1889.—*Mr. Amyot*.....*Not printed.*
79. General statements and returns of baptisms, marriages and burials in the districts of Chicoutimi, Gaspé, Iberville, Joliette, Montmagny and Saguenay, for the year 1888. Presented to the House of Commons, 27th April, 1889, by Hon. Mr. Speaker.....*Not printed.*
80. Return to an Order of the House of Commons, dated 16th April, 1888, for a Return of all Dominion Scrip issued for any purpose in connection with Manitoba and the North-West Territories; the dates and amounts of the several issues, and the purposes for which they were made; the mode or modes of redemption; the amount of each issue so far redeemed, and the balances outstanding on the 1st March, 1888. Presented to the House of Commons, 30th April, 1889.—*Mr. Wilson (Elgin)*.....*Not printed.*
81. Return to an Order of the House of Commons, dated 25th February, 1889, for a Return showing: 1. The number of immigrants that have arrived at the several ports of entry in Canada each year, from 1st July, 1867, to 1st January, 1889, distinguishing their several occupations, with the number in each. 2. The number reported as having settled in Canada, and number that went to United States, in each year. 3. The number received at the several immigration offices in each year during the same period. 4. The amount of money expended annually for immigration purposes. Presented to the House of Commons, 30th April, 1889.—*Mr. Brien*.....*Not printed.*
82. Letter from the Chief Engineer of Public Works respecting the state and condition of the road between the towns of Dundas and Galt. Presented to the House of Commons, 30th April, 1889, by Sir Hector Langevin.....*Not printed.*



# RETURN

(43)

To an ORDER of the HOUSE OF COMMONS, dated 16th April, 1888;—For a Return showing separately, in regard to companies doing business under Dominion License, the amount of Fire Insurance at risk on the 31st December, for each of the years from 1881 to 1887, both inclusive; the number of policies in force; the total amount of cash paid each year, and the total amount of expenses for each year; the percentage of losses and expenses to premium income and the expense per \$1,000 risk.

By order.

J. A. CHAPLEAU,  
Secretary of State.

OTTAWA, 16th May, 1888.

RETURN giving particulars regarding Fire Companies doing business in Canada under a Dominion License, ordered by the House of Commons, Monday, 16th April, 1888. The figures given for the Canadian Companies include their whole business, Fire and Marine, as well outside as within the Dominion, no separation of their expenses being made by the Companies in their annual returns to the Department. For the British and American Companies the figures given are for the business in the Dominion only.

1881.

Companies.	Net Amount at Risk at 31st Dec., 1881.	No. of Policies in force.	Paid for Losses.	General Expenses.	Losses per cent. of Premium Income.	Expenses per cent. of Premium Income.	Expenses per \$1,000 at Risk at 31st Dec., 1881.
<i>Canadian.</i>	\$		\$	\$			
British America.....	88,666,790	No return.	731,188	260,032	75·63	26·90	2·93
Canada Fire.....	12,922,528	do	152,074	54,757	78·84	28·39	4·24
Citizens'.....	13,021,443	8,432	89,058	37,007	88·29	36·69	2·84
Dominion Fire and Marine.	None.	No return.	54,582	37,530	158·80	32·96	.....
London Mutual Fire.....	38,477,749	39,899	94,632	28,938	77·45	23·68	0·75
Quebec.....	6,583,433	No return.	392,442	13,713	796·24	27·82	2·08
Royal Canadian.....	16,850,324	do	247,331	69,917	98·32	27·79	4·15
Sovereign.....	17,202,237	24,115	107,042	41,446	86·69	33·67	2·41
Western.....	80,846,592	No return.	975,302	349,004	76·68	27·44	4·32
<i>British.</i>							
Commercial Union.....	28,453,765	No return.	203,594	64,418	73·27	23·18	2·26
Fire Insurance Association	6,511,973	do	7,453	21,333	10·72	30·70	3·28
Guardian.....	8,417,901	3,556	58,965	15,055	90·83	23·19	1·79
Imperial.....	17,327,203	8,964	130,320	35,737	76·44	20·96	2·06
Lancashire.....	21,585,830	14,851	141,313	44,660	71·38	22·56	2·07
Liverpool and London and Globe.....	25,088,541	11,337	142,155	39,857	90·22	25·30	1·59



RETURN giving particulars regarding Fire Companies, &c.—Continued.  
1881.

Companies.	Net Amount at Risk at 31st Dec., 1881.	No. of Policies in force.	Paid for Losses.	General Expenses.	Losses per cent. of Premium Income.	Expenses per cent. of Premium Income.	Expenses per \$1,000 at Risk at 31st Dec., 1882.
<i>British.</i>	\$		\$	\$			
London & Lancashire Fire..	2,547,849	1,891	9,379	8,369	30.29	27.03	3.28
London Assurance.....	7,547,505	3,095	24,283	14,683	38.91	23.53	1.95
North British.....	31,568,752	15,514	253,794	63,239	93.52	23.30	2.00
Northern.....	10,572,310	6,946	65,338	20,076	68.40	21.02	1.90
Norwich Union.....	5,330,188	No return.	14,205	14,538	26.85	27.48	2.73
Phoenix of London.....	18,902,223	10,168	121,359	42,932	67.99	24.05	2.27
Queen.....	19,326,060	11,013	150,759	43,019	77.65	22.16	2.23
Royal.....	67,639,225	38,248	324,667	108,725	64.52	21.61	1.61
Scottish Imperial.....	6,901,974	4,711	21,821	12,252	41.90	23.53	1.78
<i>American.</i>							
Ætna.....	7,450,625	No return.	60,018	14,924	55.59	13.82	2.00
Agricultural of Watertown	12,164,991	do	29,316	20,320	51.11	35.42	1.67
Hartford.....	9,633,132	6,119	71,227	11,968	81.29	13.66	1.24
Phoenix of Brooklyn.....	1,868,706	No return.	34,572	11,995	62.70	21.76	6.42

## 1882.

<i>Canadian.</i>	1882.						
British America.....	67,244,923	No return.	629,232	245,909	78.51	30.68	3.66
Canada Fire and Marine...	None.	do	73,838	61,026	223.86	185.01	.....
Citizens'.....	20,544,161	do	119,581	71,520	61.64	36.86	3.48
London Mutual Fire.....	38,015,954	39,719	60,758	26,798	57.92	25.55	0.70
Quebec.....	6,436,690	No return.	42,338	11,895	84.90	23.85	1.85
Royal Canadian.....	20,779,135	do	235,595	70,059	77.89	23.16	3.37
Sovereign.....	27,232,056	29,544	81,454	48,075	68.62	40.50	1.77
Western.....	93,056,308	No return.	1,037,092	376,710	75.55	27.44	4.05
<i>British.</i>							
City of London.....	7,128,492	3,672	66,220	36,958	52.10	29.08	5.18
Commercial Union.....	31,656,868	14,962	238,110	60,673	77.32	19.70	1.92
Fire Insurance Association	11,090,799	No return.	75,568	29,071	68.09	26.19	2.62
Guardian.....	9,452,518	4,009	45,027	15,550	63.33	21.87	1.65
Imperial.....	18,848,052	9,600	100,755	36,459	56.12	20.31	1.93
Lancashire.....	22,320,434	14,610	121,876	45,473	58.44	21.81	2.04
Liverpool and London and Globe.....	26,511,023	11,442	107,074	36,679	66.11	22.65	1.38
London & Lancashire Fire	8,200,171	10,755	30,537	26,911	29.03	25.58	3.28
London Assurance.....	8,156,137	3,225	35,707	14,713	53.63	22.10	1.80
North British.....	34,364,165	17,010	179,488	60,708	65.62	22.20	1.77
Northern.....	13,540,882	8,748	89,217	27,056	67.45	20.46	2.00
Norwich Union.....	8,523,538	No return.	40,436	18,218	55.34	24.93	2.14
Phoenix of London.....	20,916,440	12,766	123,946	46,870	60.72	22.96	2.24
Queen.....	20,523,020	12,461	150,717	44,886	72.77	21.67	2.19
Royal.....	85,870,326	48,016	315,855	132,677	55.46	23.30	1.55
Scottish Imperial.....	8,727,139	6,003	39,593	17,012	54.75	23.53	1.95
Scottish Union.....	3,690,550	2,096	8,318	8,587	22.11	22.82	2.33
<i>American.</i>							
Ætna.....	7,295,850	No return.	83,217	17,579	72.10	15.23	2.41
Agricultural of Watertown	14,208,104	do	20,271	16,856	39.07	32.49	1.19
Hartford.....	10,688,292	8,431	56,554	18,210	54.72	17.62	1.70
Phoenix of Brooklyn.....	2,580,099	No return.	16,177	8,422	56.02	29.17	3.26

## RETURN giving particulars regarding Fire Companies, &amp;c.—Continued.

1883.

Companies.	Net Amount at Risk at 31st Dec., 1883.	No. of Policies in force.	Paid for Losses.	General Expenses.	Losses per cent. of Premium Income.	Expenses per cent. of Premium Income.	Expenses per \$1,000 at Risk at 31st Dec., 1883.
<i>Canadian.</i>	\$		\$	\$			
British America.....	58,289,046	No return.	550,044	262,100	74·34	35·42	4·50
Citizens' .....	18,691,007	do ...	135,613	71,637	74·76	39·49	3·83
London Mutual Fire.....	38,467,658	40,009	70,211	29,095	63·35	26·25	0·76
Quebec .....	6,645,906	No return.	49,056	13,648	75·19	20·92	2·05
Royal Canadian.....	21,429,502	do ...	237,566	81,202	75·58	25·83	3·79
Sovereign .....	25,896,039	do ...	165,857	69,056	81·35	33·87	2·67
Western.....	100,466,083	do ...	1,068,071	392,175	77·78	28·56	3·90
<i>British.</i>							
Caledonian .....	6,526,593	4,088	18,631	16,139	26·22	22·72	2·47
City of London.....	9,951,395	6,191	82,158	37,792	54·89	25·25	3·80
Commercial Union.....	32,920,799	16,473	254,744	58,394	86·50	19·83	1·77
Fire Insurance Association	13,522,809	No return.	96,797	34,080	88·55	31·17	2·52
Guardian .....	11,288,207	5,011	38,740	22,020	39·62	22·52	1·95
Imperial .....	19,805,465	10,133	92,334	43,079	46·38	21·64	2·18
Lancashire .....	21,262,792	14,466	124,943	50,039	59·45	23·83	2·36
Liverpool and London and Globe.....	28,585,655	14,608	109,726	42,577	56·10	21·76	1·49
London & Lancashire Fire	9,423,865	10,268	76,682	23,163	80·46	24·31	2·46
London Assurance .....	8,468,218	3,529	51,289	16,725	66·64	21·73	1·98
National of Ireland .....	2,655,093	No return.	6,472	15,066	19·89	46·32	5·67
North British.....	37,190,452	19,043	168,409	78,527	57·36	26·75	2·11
Northern.....	15,720,719	9,709	87,365	35,493	51·52	20·93	2·26
Norwich Union.....	9,511,586	No return.	54,098	21,468	59·60	33·65	2·26
Phoenix of London.....	20,395,321	13,444	145,025	47,414	71·25	23·29	2·32
Queen.....	20,759,787	12,343	132,189	48,249	61·11	22·30	2·32
Royal.....	103,704,993	58,981	418,241	134,596	68·57	22·06	1·30
Scottish Imperial.....	3,080,535	2,036	21,229	7,553	166·38	59·98	2·48
Scottish Union .....	5,839,288	2,876	13,599	13,858	26·98	27·50	2·37
<i>American.</i>							
Ætna.....	7,364,720	No return.	64,108	21,392	55·16	18·40	2·90
Agricultural of Watertown	16,783,017	do ...	28,965	22,172	41·11	31·47	1·32
Hartford.....	14,104,692	10,936	71,415	21,937	54·46	16·73	1·56
Phenix of Brooklyn.....	3,467,867	No return.	30,776	11,866	54·04	20·83	3·42

## RETURN giving particulars regarding Fire Companies, &amp;c.—Continued.

1884.

Companies.	Net Amount at Risk at 31st Dec., 1884.	No. of Policies in force.	Paid for Losses.	General Expenses.	Losses per cent. of Premium Income.	Expenses per cent. of Premium Income.	Expenses per \$1,000 at Risk at 31st Dec., 1884.
<i>Canadian.</i>	\$		\$	\$			
British America.....	64,868,262	No return.	559,736	243,029	73·44	31·88	3·75
Citizens'.....	26,668,094	do	148,531	76,004	65·07	33·30	2·85
London Mutual Fire.....	40,488,508	41,011	75,748	37,599	64·06	31·80	0·93
Quebec.....	7,096,595	No return.	35,578	16,915	52·72	25·06	2·38
Royal Canadian.....	23,070,049	do	226,864	92,515	58·15	23·71	4·01
Western.....	103,591,316	do	1,119,252	404,975	78·56	28·43	3·91
<i>British.</i>							
Caledonian.....	8,211,249	5,582	67,032	22,004	73·70	24·19	2·68
City of London.....	15,473,888	10,170	94,585	41,502	53·28	23·38	2·68
Commercial Union.....	28,060,143	17,865	237,611	67,306	75·74	21·45	2·40
Fire Insurance Association	17,762,005	No return.	88,231	37,854	65·79	28·23	2·13
Glasgow and London.....	13,268,033	do	109,609	82,759	40·57	27·92	6·24
Guardian.....	12,408,610	5,397	68,562	33,858	47·77	23·59	2·73
Imperial.....	20,181,050	10,286	128,330	47,745	62·56	23·27	2·37
Lancashire.....	22,123,978	14,524	151,256	54,503	66·79	24·07	2·46
Liverpool and London and Globe.....	29,487,959	16,571	122,211	44,807	57·34	21·02	1·52
London & Lancashire Fire.	10,647,447	8,236	57,974	23,509	62·26	25·25	2·21
London Assurance.....	7,677,227	3,486	40,626	15,694	64·06	24·75	2·04
National of Ireland.....	4,146,563	No return.	24,700	18,345	53·73	39·91	4·42
North British.....	39,704,241	21,246	190,535	74,687	58·96	23·11	1·88
Northern.....	18,167,952	9,943	166,240	39,827	85·80	20·56	2·19
Norwich Union.....	9,065,638	No return.	48,063	22,995	51·99	24·87	2·54
Phoenix of London.....	24,544,403	13,604	176,594	52,440	78·31	23·25	2·14
Queen.....	21,945,507	12,452	140,051	50,702	61·72	22·34	2·31
Royal.....	104,490,355	61,962	360,084	127,363	67·77	23·97	1·22
Scottish Union.....	6,074,950	3,304	18,294	11,356	35·85	22·25	1·87
<i>American.</i>							
Ætna.....	7,450,320	No return.	55,485	21,732	47·04	18·43	2·92
Agricultural of Watertown	20,139,379	do	33,740	28,876	45·08	33·24	1·43
Hartford.....	12,045,719	12,736	85,534	22,413	63·19	16·56	1·86
Phenix of Brooklyn.....	4,462,228	No return.	49,395	17,910	66·69	24·18	4·01



## RETURN giving particulars regarding Fire Companies, &amp;c.—Continued.

1885.

Companies.	Net amount at Risk at 31st Dec., 1885.	No. of Policies in force.	Paid for Losses.	General Expenses.	Losses per cent. of Premium Income.	Expenses per cent. of Premium Income.	Expenses per \$1,000 at Risk at 31st Dec., 1885.
<i>Canadian.</i>	\$		\$	\$			
British America .....	71,805,043	No return.	541,793	260,414	63·79	30·66	3·63
Citizens' .....	22,379,289	do	157,978	82,618	59·37	31·05	3·69
London Mutual Fire.....	43,004,988	42,980	78,556	40,020	63·19	32·19	0·93
Quebec .....	7,838,432	No return.	39,360	18,538	50·31	23·69	2·37
Royal Canadian.....	23,109,657	do	286,741	108,210	66·58	25·13	4·68
Western.....	103,793,156	do	880,828	408,079	65·70	30·44	3·93
<i>British.</i>							
Caledonian .....	9,249,259	6,638	48,046	19,513	54·42	22·10	2·11
City of London.....	16,812,081	12,194	86,607	41,545	50·84	24·39	2·47
Commercial Union .....	27,945,745	18,384	204,526	68,391	61·24	20·48	2·45
Fire Insurance Association	12,011,084	No return.	88,437	33,525	69·91	26·50	2·79
Glasgow and London.....	14,901,320	do	104,043	45,016	64·37	27·85	3·02
Guardian .....	12,694,380	6,051	79,163	36,468	52·67	24·26	2·87
Imperial .....	19,123,050	10,244	80,292	45,258	43·22	24·36	2·37
Lancashire .....	22,573,110	14,421	115,642	46,977	55·48	22·54	2·08
Liverpool and London and Globe.....	32,994,197	18,816	110,677	53,945	53·35	26·01	1·63
London & Lancashire Fire	10,593,812	9,500	64,993	22,086	72·24	24·55	2·08
London Assurance.....	7,980,032	3,663	46,119	16,251	75·69	26·67	2·04
National of Ireland.....	5,374,606	No return.	38,094	16,529	70·44	30·56	3·08
North British.....	41,178,675	22,173	155,895	78,150	50·55	25·34	1·90
Northern .....	17,996,138	10,103	105,279	37,133	58·08	20·49	2·06
Norwich Union.....	9,143,660	No return.	48,695	23,282	53·99	25·82	2·55
Phoenix of London.....	24,715,136	12,920	91,904	51,693	44·18	24·85	2·09
Queen .....	22,227,312	12,569	129,232	47,764	58·04	21·45	2·15
Royal.....	106,598,684	63,334	295,008	124,204	59·15	24·90	1·17
Scottish Union.....	7,160,325	3,980	20,222	11,865	33·42	19·61	1·66
<i>American.</i>							
Ætna.....	6,975,275	No return.	54,276	19,884	49·96	18·30	2·85
Agricultural of Watertown	22,557,538	do	38,663	25,900	54·92	36·79	1·15
Hartford .....	11,910,922	10,361	68,868	22,126	52·50	16·87	1·86
Phenix of Brooklyn .....	5,398,412	No return.	47,886	18,295	55·37	21·16	3·39

RETURN giving particulars regarding Fire Companies, &c.—*Continued.*

1886.

Companies.	Net Amount at Risk at 31st Dec., 1886.	No. of Policies in force.	Paid for Losses.	General Expenses.	Losses per cent. of Premium Income.	Expenses per cent. of Premium Income.	Expenses per \$1,000 at risk at 31st Dec., 1886.
<i>Canadian.</i>	\$		\$	\$			
British America.....	74,985,428	No return.	607,192	262,532	69.59	30.09	8.50
Citizens'.....	21,557,864	do	190,680	79,075	76.49	31.72	3.67
London Mutual Fire.....	42,612,366	41,219	83,830	40,211	75.42	36.18	0.94
Quebec.....	8,438,555	No return.	50,406	21,599	58.21	24.94	2.56
Royal Canadian.....	20,684,187	do	315,435	94,362	78.88	23.60	4.56
Western.....	100,497,986	do	831,399	428,521	64.27	31.25	4.26
<i>British.</i>							
Caledonian.....	10,352,742	7,809	72,624	20,379	78.49	22.02	1.97
City of London.....	13,593,013	10,445	127,550	43,300	74.89	25.42	3.19
Commercial Union.....	27,502,164	19,167	236,448	73,492	72.06	22.40	2.67
Fire Insurance Association	14,369,911	No return.	93,807	39,862	63.75	27.09	2.77
Glasgow and London.....	20,375,413	do	144,330	69,593	70.32	33.91	3.42
Guardian.....	11,277,453	5,868	99,846	36,415	66.37	24.21	3.23
Imperial.....	19,403,420	10,726	129,743	51,094	71.23	28.05	2.63
Lancashire.....	21,428,911	14,425	149,066	48,232	76.54	24.76	2.25
Liverpool and London and							
Globe.....	33,092,968	20,841	195,532	56,480	87.27	25.21	1.71
London & Lancashire Fire	10,331,670	7,004	43,218	22,636	46.45	24.33	2.19
London Assurance.....	8,872,792	4,133	47,855	17,435	72.56	26.43	1.96
National of Ireland.....	6,625,774	No return.	76,134	19,539	106.58	27.35	2.95
North British.....	40,929,470	22,937	186,642	79,667	61.43	26.22	1.95
Northern.....	15,886,551	9,937	130,787	30,976	89.33	21.16	1.95
Norwich Union.....	10,753,270	7,917	46,074	22,610	51.95	25.49	2.10
Phoenix of London.....	23,391,992	12,987	150,407	46,884	77.15	24.05	2.00
Queen.....	21,594,278	12,846	128,645	46,877	61.13	22.26	2.17
Royal.....	73,999,098	46,672	267,443	130,618	52.58	25.68	1.77
Scottish Union.....	9,483,752	5,501	21,282	16,508	26.89	20.86	1.74
<i>American.</i>							
Ætna.....	6,690,780	No return.	68,599	19,734	65.58	18.87	2.95
Agricultural of Watertown	23,200,110	do	49,976	29,608	63.75	37.77	1.28
Connecticut.....	1,850,000	900	7,704	4,001	33.03	17.16	2.16
Hartford.....	11,592,038	8,631	69,043	22,106	55.41	17.74	1.91
Phenix of Brooklyn.....	7,588,609	No return.	43,989	21,989	45.38	22.68	2.90

## RETURN giving particulars regarding Fire Companies, &amp;c.—Continued.

1887.

Companies.	Net Amount at Risk, at 31st Dec., 1887.	No. of Policies in force.	Paid for Losses.	General Expenses.	Losses per cent. of Premium Income.	Expenses per cent. of Premium Income.	Expenses per \$1,000 at Risk at 31st Dec., 1887.
<i>Canadian.</i>	\$		\$	\$			
British America .....	73,657,839	No return.	631,262	265,196	73·03	30·68	3·37
Citizens' .....	22,940,313	do	217,412	94,782	83·91	36·58	4·13
London Mutual Fire .....	43,225,614	41,811	102,639	40,899	86·53	34·48	0·95
Quebec .....	8,979,007	No return.	61,254	25,098	71·13	29·14	2·80
Royal Canadian .....	24,726,087	do	338,557	114,079	77·84	26·23	4·61
Western .....	107,104,971	do	1,031,507	497,336	65·33	31·50	4·64
<i>British.</i>							
Atlas .....	2,480,080	No return.	19,824	12,476	60·13	37·84	5·03
Caledonian .....	11,481,770	8,841	71,996	28,047	68·22	26·57	2·44
City of London .....	14,594,317	11,477	117,840	49,979	73·55	31·20	3·42
Commercial Union .....	29,489,109	19,420	206,844	68,049	72·56	23·87	2·31
Employers' Liability .....	2,784,938	1,371	11,838	13,454	26·19	29·77	4·83
Fire Insurance Association	14,769,882	No return.	117,097	40,448	91·90	31·74	2·74
Glasgow and London .....	23,318,649	do	186,763	77,055	71·93	29·68	3·30
Guardian .....	12,892,090	7,765	121,111	40,677	74·50	25·02	3·16
Imperial .....	20,703,993	11,750	95,584	57,360	48·85	29·32	2·77
Lancashire .....	21,931,444	15,528	93,548	51,659	48·55	26·81	2·36
Liverpool and London and							
Globe .....	35,727,548	21,703	159,400	63,189	68·41	27·12	1·77
London & Lancashire Fire	11,059,910	7,802	65,226	28,494	63·42	27·71	2·58
London Assurance .....	9,774,545	4,747	52,333	24,375	72·37	33·71	2·49
National of Ireland .....	6,937,422	No return.	53,554	24,260	72·53	32·85	3·50
North British .....	42,141,412	23,818	190,752	80,623	62·71	26·50	1·91
Northern .....	17,922,866	11,266	102,018	42,057	66·61	27·46	2·35
Norwich Union .....	11,453,730	8,791	62,316	26,101	71·90	30·12	2·28
Phoenix of London .....	24,382,573	13,595	112,280	55,777	51·06	25·37	2·29
Queen .....	21,728,319	13,328	119,306	51,887	55·91	24·31	2·39
Royal .....	76,708,116	No return.	306,371	127,646	58·79	24·49	1·66
Scottish Union .....	12,365,771	7,641	38,828	22,554	38·56	22·40	1·82
<i>American.</i>							
Ætna .....	8,782,832	No return.	68,430	25,038	54·84	20·07	2·85
Agricultural of Watertown	23,377,973	do	54,946	30,814	69·05	38·73	1·32
Connecticut .....	4,250,500	do	23,546	9,488	68·56	27·63	2·23
Hartford .....	11,766,853	7,901	65,544	27,639	51·46	21·70	2·35
Phenix of Brooklyn .....	8,169,013	No return.	112,694	23,551	149·11	31·16	2·90





## RETURN

(49)

To an ORDER of the HOUSE OF COMMONS, dated the 25th February, 1889;—  
For copies of all correspondence with the Department of Railways and Canals on the subject of the late break in the Cornwall Canal, and of all plans and suggestions by Civil Engineers and others for the prevention of the recurrence of such break, and the report of John Page, the Chief Engineer of Canals, thereon.

By Order.

HECTOR L. LANGEVIN,

*Acting for the Secretary of State.*

DEPARTMENT OF THE SECRETARY OF STATE,  
OTTAWA, 8th March, 1889.

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*(Telegram from Cornwall.)*

12th October, 1888.

To A. P. BRADLEY.

Serious break took place in canal at 11.30 last evening on Six-mile Reach. Over 200 feet of embankment swept in river. Navigation likely to suspend for two weeks. Have telegraphed Mr. Page to Ottawa.

D. A. McDONELL.

12th October, 1888.

E. H. PARENT,  
Montreal.

Break Cornwall Canal. Mr. Page attending. It may be of advantage you should visit the locality. Please do so.

A. P. BRADLEY.

12th October, 1888.

JOHN PAGE, Esq.,  
Brockville.

~~Superintendent~~ Superintendent Cornwall Canal wires: "Serious break took place in canal at 11.30 last evening on Six-mile Reach. Over two hundred feet of embankment swept in river—navigation likely to suspend for two weeks.

A. P. BRADLEY.

12th October, 1888.

JOHN PAGE,  
Brockville, or forward.

Minister says if necessary bring up Conway and staff to aid in repairing the Cornwall Canal break.

A. P. BRADLEY.

12th October, 1888.

D. A. McDONELL,  
Cornwall.

You say the break is two hundred feet in length. Please say to what depth.  
A. P. BRADLEY.

(*Telegram from Montreal.*)

To Hon. J. H. POPE,  
Railways and Canals Department.

12th October, 1888.

I have wired Mr. Page to send Conway and his Staff to the break in Cornwall Canal. Please to have it carried out as it is most important. Shipping will be seriously delayed.

W. W. OGILVIE.

(*Telegram from Brockville.*)

12th October, 1888.

To A. P. BRADLEY,  
Railways and Canals.

I leave by first train for Cornwall Canal casualty; if I have to remain for more than one day there Sault Ste. Marie letting must be further postponed. Ask Minister which course he prefers me to adopt. Answer at Mille Roches.

JOHN PAGE.

(*Telegram from Montreal.*)

12th October, 1888.

To Hon. J. H. POPE.

Cornwall Canal break calamity to trade. This company has timber in Kingston, and barges can be secured to transport, if required for repairs.

HUGH McLENNAN.

(*Telegram from Cornwall, Ont.*)

13th October, 1888.

To A. P. BRADLEY,  
Railways and Canals.

The break in canal 200 long by 23 feet in depth. Mr. Page and Conway were here last night.

D. A. McDONELL, *Superintendent.*

(*Telegram from Brockville, Ont.*)

13th October, 1888.

To A. P. BRADLEY.

Returned from Cornwall this morning; breaks will take considerable time to make good; have put on Gaherty to make necessary crib-work, and directed Conway to proceed with earth work; both of them making arrangements to start at once. It will take time to get matters into working shape.

I doubt being able to do justice to Sault Ste. Marie intricate works; in face of so very many interruptions all but discouraged.

JOHN PAGE.

12th October, 1888.

JOHN PAGE.

At Mille Roches, or forward.

Minister thinks you should send for Conway's full staff, and see that the break has such help as required; he does not want to further postpone the Sault work.

A. P. BRADLEY.



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THE KINGSTON AND MONTREAL FORWARDING COMPANY  
(LIMITED).

MONTREAL, 12th October, 1888.

To the Hon. J. H. POPE,

Minister of Railways and Canals, Ottawa.

SIR,—Owing to this unfortunate washout in the Cornwall Canal, we have to-day nine barges and two tug steamers held over at Prescott. A number of the barges are loaded with grain for our ocean steamers here. We have also at Kingston, and due there by Sunday, 100,000 bushels grain, shipped from Chicago for export to Liverpool. If the Superintendent of the Cornwall Canal is correct in his statement that it will take all month to repair the break, our fall trade is ended, as all grain will be diverted by Buffalo.

I would respectfully urge that the Department despatch their best engineer to the scene, with instructions to obtain the most competent assistants, and spare no expense, and working night and day. Would also advise the publication, as soon as possible, when navigation can be resumed.

I am, Sir, your most obedient servant,

W. G. STEWART, *Managing Director*.

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16th October, 1888.

SIR,—I am instructed to acknowledge the receipt of your letter of the 12th instant, urging that every exertion be made to repair the break in the Cornwall Canal as soon as possible, and asking that your company be notified of its re-opening for traffic.

I am, Sir, your obedient servant,

A. P. BRADLEY, *Secretary*.

WM. STEWART Esq., Managing Director,  
Kingston and Montreal Forwarding Co.,  
P. O. Box 920, Montreal.

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OTTAWA, 17th October, 1888.

SIR,—On Friday last I visited the “break” in the Cornwall Canal bank, near Mille Roches, and found, as near as I could estimate, that about 200 feet in length of the bank, on the side next the canal, had disappeared; besides the southern half of the bank, for a considerable distance, had moved out and settled down, and that even the bottom, for half way across the canal, had been washed out from 6 to 7 feet; whilst at two places in the canal small banks stood up like pillars, the material was so hard.

At the outer or river side of the bank the bottom was, as near as I could judge (there being no means of getting to it), from 12 to 15 feet deep, I at once decided that there were only two ways of getting the gap quickly made up, one of which was to put in a line of crib-work on the lower or river side, so as to retain the earth put in to make up the bank. This would, of course, require time; the other course was to try, if possible, to cut off the leakage at the guard gates and weir at Dickenson's Landing, and to endeavor to get the drainage water past the “break,” and, if successful, no crib-work would be required, as a sufficient body of stone could be put in at the outer side of the bank to prevent the escape of the earth put in to make up the gap. The latter course has been adopted, and, I am glad to learn, is likely to be successful, as it will enable the work to be proceeded with more rapidly.

There are now 136 men employed making roads, bridges, &c., and 36 teams hauling and delivering stone, so that the operations are being proceeded with as expeditiously as can be done, and will, after to-night, be carried on night and day. Electric arc-lights have been provided, and a connection with the men in charge at "break" established.

I beg respectfully to advise that authority be obtained for an expenditure, if need be, of \$10,000, although I think it unlikely that more than \$8,000 will be required.

I have the honor to be, Sir, your obedient servant,

JOHN PAGE, *Chief Engineer.*

The Secretary of Railways and Canals.

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REPORT BY MR. PAGE ON No. 121806.

The within letter was written by me a few days after the breach in the bank of the canal occurred, at a time when there seemed to be a fair prospect that it could be made good, and navigation resumed in ten or twelve days at most; but wet and unpleasant weather set in, and continued night and day for several weeks. It was then difficult to get suitable men and teams to do the necessary work; although there was no deficiency in the number of either, very few of them were accustomed to the kind of work, and did not seem at all desirous of learning, which, together with the very rainy, unfavorable weather, and extremely soft clay soil, made it difficult for men and horses to move around at all. This unfavorable state of matters led to treble the time of doing the work and nearly five times the estimated expense—that is to say instead of \$10,000 it cost upwards of \$47,000.

The breach occurred on the night of the 11th October, and it was the 15th November before the bank could be got into a condition that would admit of sufficient water being let into the canal to enable vessels to pass.

This spring the bank is being widened out to render it still more secure.

The actual cause of the breach is believed to have been the action of the high water in the north branch of the river in January and February, 1888, which softened the banks, that at places adjoining the margin of the river have not the best kind of foundation.

These places are intended to be secured by placing the material excavated from the prism, when deepening and widening the channel, in a position to strengthen and widen out the banks, keeping it in place by a line of crib-work when the water exceeds 5 feet in depth, and when shoaler by a toe of boulder stone, the whole to be afterwards secured by a facing of stone up to high water line, as stated in my report of the 27th February, 1889.

JOHN PAGE.

1st March, 1889.

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(Telegram from Moulinette, Ont.)

To J. PAGE.

At the present rate of progress, if weather keeps good, water will be let in on Tuesday next. As there will be but one pay day, send plenty of money to the credit of the paymaster. Don't you think it advisable to give notice through the press to load vessels not over 8 feet, &c., &c. Notify factories not use any water before Monday, the 5th November. Two dollars day for men; two and half for carts, and three and half for teams.

D. A. McDONELL.

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(Telegram from Mille Roches, Ont.)

TO JOHN PAGE.

At present rate of progress and dry weather, breach filled ready for dredge to remove portion of coffer dam Sunday evening next. Think it best to make but one pay for men on, say, Monday or Tuesday next.

M. CONWAY.

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The undersigned, referring to the annexed memorandum from the Honorable the Minister of Railways and Canals, recommending that a warrant of His Excellency the Governor General be issued for the sum of \$10,000, for the purpose of providing funds for the repair of a serious break on the Cornwall Canal, has the honor to report to Council that there is no Parliamentary provision for the expenditure above referred to.

Respectfully submitted,

G. E. FOSTER,

*Minister of Finance and Receiver-General.*

FINANCE DEPARTMENT,

Ottawa, 19th October, 1888.

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*CERTIFIED COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 23rd October, 1888.*

On a memorandum, dated 18th October, 1888, from the Minister of Railways and Canals, representing that, under date the 17th October, instant, the Chief Engineer of Government Canals has reported on the subject of a serious break that has occurred in the Cornwall Canal, near Mille Roches, and of the operations undertaken in order to its repair.

The Minister further represents that the Chief Engineer advises that authority be obtained for an expenditure of \$10,000 in such repair, an amount which he considers sufficient, and their being, as is advised by the Minister of Finance, no appropriation available for the purpose, and the case being one of urgency, the Minister of Railways and Canals recommends the issue of a special warrant of His Excellency the Governor General for the amount named, from which the cost of repair may be met.

The committee advise that a special warrant do issue accordingly.

JOHN J. MCGEE, *Clerk Privy Council.*

The Honorable

The Minister of Railways and Canals.

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BROCKVILLE, ONT., 29th October, 1888.

TO A. P. BRADLEY, Esq.,

Railways and Canals.

On the way to Mille Roches ; something gone wrong again ; expect to reach Ottawa Tuesday.

JOHN PAGE.

MONTREAL, 29th October, 1888.

TO Hon. J. H. POPE,

Detention by the break in Cornwall Canal becoming most serious ; please to do all you can to forward the work.

W. K. W. OGILVIE.



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BROCKVILLE, ONT., 13th November, 1888.

To A. P. BRADLEY,

Railways and Canals.

Work at Mille Roches proceeded fairly yesterday; in hopes that water can be safely raised Wednesday night; various important reasons necessitated my being there that day, will then return to Ottawa.

JOHN PAGE.

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CORNWALL, 6th December, 1888.

SIR.—I beg to inform you that the Cornwall Canal is now closed for the season. Gates and bridge tied up in winter order. The water on the Six-mile Reach let down to 7 feet, which is sufficient to supply the mills.

I find the embankment of the break has settled about 1 foot. Lowering the water to 7 feet will, no doubt, help to keep it as it is until such time as the Government may see fit to back the break with stones and earth.

I am placing the bridge that we used while working at the bank, between the break and land, across the canal, so that when the ice takes in the canal this bridge will make a safe road for teams to cross, if necessary, and will come good in spring, when the ice might not be safe.

I have the honor to be, Sir, your obedient servant,

D. A. McDONELL, *Superintendent*.

A. P. BRADLEY, Esq., Secretary,

Railways and Canals, Ottawa.

CERTIFIED COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 29th December, 1888.

On a memorandum, dated 22nd December, 1888, from the Minister of Railways and Canals, representing that a statement of expenditure in connection with the recent "break" on the Cornwall Canal has been handed in by the Chief Engineer of Government Canals, showing a total of \$47,872.85, of which amount the sum of \$10,000 was covered by a special warrant of Your Excellency, leaving a balance of \$37,872.85 unprovided for.

The Minister recommends, as the necessity is urgent, and the Minister of Finance having reported that there is no Parliamentary appropriation from which the same can be defrayed, that a special warrant of His Excellency the Governor General do issue for the sum of \$38,000, in order to cover this expenditure.

The Committee advise that a special warrant be issued, as recommended.

JOHN J. MCGEE, *Clerk Privy Council*.

The Honorable

The Minister of Railways and Canals.

BROCKVILLE, 30th October, 1888.

DEAR SIR—In these troublous times I can well understand how the great affairs of State demand your most earnest attention, and for fear of inopportune intrusion, I have hitherto refrained from reminding you of a matter of detail which just now is giving no little trouble and anxiety to those engaged in commerce; but I feel that I must discharge my Canadian conscience of its duty, by reminding you of my views for the enlargement of the Cornwall Canal, as set forth in my letter addressed to you on the 17th February, 1885. My main object in suggesting the plan I did was to provide against disaster of the kind under which the navigation is now stopped by the breach near Mille Roches.

I am informed it is the intention of your Department to enlarge the upper reach of the old canal, *in situ*, following its sinuosities over the same treacherous ground. If such plan is persisted in I think you may look for more serious breaches and stoppages after the enlargement than have happened before it, for the reasons I have pointed out, and if the volume of trade by the St. Lawrence ever reaches the magnitude expected, every stoppage of the traffic must be felt with tenfold severity.

So far, my little efforts personally to improve on canals have been abortive, and I am not encouraged to offer suggestions of any kind; but when a man feels and knows that he is right he is apt to be persistent in spite of all rebuffs. In the expenditure of public moneys we look for certainty instead of uncertainty of results, even if the work costs more. But my plan will cost less. I would give you a deep water pond 3 miles long and 300 yards wide, in place of a canal hung up on a treacherous bank, never safe from breaches and land slides. I am sure that if the business men of Montreal were aware of what I am thus stating in confidence to you they would give you no rest until your plans were reconsidered and settled on a permanent basis.

With sincere respect, I am yours faithfully,

SAMUEL KEEFER.

Hon. J. H. POPE,

Minister of Railways and Canals, Ottawa.

BROCKVILLE, 17th February, 1885.

SIR,—I wish to bring under the notice of your Department a suggestion of mine in reference to the enlargement of the Cornwall Canal, which you will find embodied in the accompanying memorandum.

This is no new idea to me. When I was Assistant Engineer on that Canal, under the late John B. Mills, I brought it to his notice, but he failed to see the importance of it. Since the commencement of the present enlargement the thought of it has been revived, in me at least, perhaps also in others, but it was strong enough to induce me to pay a visit to the locality during the last summer to revive my earlier impression and consider the whole question anew in relation to the operations now begun at either end of the canal. I am the more convinced by this visit that it is a suggestion well worthy of the consideration of your Department, and that an examination and report on it by one of your Engineers is not only desirable, but that it will, if fairly and intelligently dealt with, lead to its adoption and prove of signal advantage to the public service.

I have the honor to be, Sir, your obedient servant,

SAMUEL KEEFER, *M. Inst. C.E.*

The Hon. J. H. POPE,

Minister of Railways and Canals, Ottawa.

*MEMORANDUM Relating to the Enlargement of the Cornwall Canal.*

This canal was surveyed, located and, for the most part, constructed under the direction of John B. Mills, whose plans were submitted to and approved of by Benjamin Wright, at one time Chief Engineer of the Erie Canal. Both were American engineers. The writer is one of those who assisted in the survey and construction of the canal.

The work was begun in 1834, under commissioners appointed by the Parliament of Upper Canada, and at the Union of the two Provinces in 1840, was completed under the Board of Works.

The canal, which avoids the Long Sault and Cornwall Rapids, is 11½ miles long. It has one guard lock and six lift locks of 8 feet lift each, to overcome the fall of 48 feet in the river in that distance. It is 100 feet wide at bottom and 150 feet at surface; the locks, 200 ft. by 55 ft. by 9 ft. in the chamber, affording a draft of 9 feet navigation over the sills and 10 feet in the canal between the locks.



The line of the canal follows the sinuosities of the river along its left bank,  $5\frac{1}{4}$  miles to Mille Roches, thence to Cornwall  $6\frac{1}{4}$  miles by a more direct course inland.

For 2 miles along the bank of the Long Sault Rapids the soil is of strong clay and gravel, with stones and boulders embedded in it, and is admirably adapted for making a strong and permanent embankment between the canal and the swift current of the river—the outer edge of which is well protected by the boulder stones taken out of the excavation for the canal.

For the remaining  $3\frac{1}{4}$  miles to Mille Roches the line is laid in side cutting, mostly sand and clay, in alternate layers, requiring great care in the selection and disposal of the material going into the embankment, in order to render it impervious to water. Springs of water were also found in the base of the embankment, which gave much trouble, and which had to be led out by artificial drains; and still, notwithstanding all the care bestowed upon the work, when the canal was opened for use breaches occurred in the bank which carried out many thousands of yards of solid material and stopped the navigation for weeks. In some places the water found its way under the bank through layers of sand some feet under the bottom of the canal. These streaks of sand had to be cut off by deep puddle trenches, which, now in the enlargement by which the canal is to be made 5 feet deeper, will be cut through, and expose the bank to further danger if it is not guarded against in proper time. This is the chief difficulty to be encountered in the prosecution of the enlargement of the existing canal, and is a matter of serious moment. Any breach in this part of the enlarged canal might involve great cost for repairs, and much delay to the navigation.

Another difficulty in the enlargement presents itself in the road culvert, or sub-way under the canal at Moulinette. This structure, which narrows the canal to 50 feet at bottom at that place, and the crown of which rises above the bottom of the enlarged canal, will undoubtedly have to be removed, and the public served by means of a draw-bridge, to communicate with the road bridge over the mill-dam leading to Sheik's Island.

Having thus pointed out the main difficulties in the way of the enlargement of the old canal, it is now proposed to show how they can be avoided and a better plan adopted.

Sheik's Island belongs to Canada. The channel between it and the main land on the Canadian shore is Canadian water, and is not navigable, but it can be readily utilized and made to serve as a part of the enlarged canal, simply by throwing dams across it, at the head and foot of the island, leaving the old canal untouched, save at the two ends, where the embankment must be cut through to connect with deep water basin formed by those two dams. This basin will be fully three miles long, from 600 to 1,500 feet in width, and from 16 to 30 feet deep, and consequently much easier to navigate than the old winding canal. The channels at either end, where the dams are to be erected, are quite narrow, and the bottom either hard gravelly clay or solid rock, offering every facility for the erection of strong and permanent dams.

Against this plan are the following drawbacks:—

(1). A small quantity of land will be overflowed on the island side, and at the culvert entrance at Moulinette.

(2). The mill privilege at Moulinette of some 6 feet head and fall will be obliterated—and (3). The road bridge over the mill-dam to the island will have to be raised—probably re-built.

On the other hand, magnificent water powers will be created, both at the head and foot of the island, of infinitely greater value to the interest, industry and prosperity of the surrounding country than the small mill privilege that will be destroyed by the establishment of this fine deep water basin.

But chiefly the danger and uncertainty of deepening the old canal, *in situ*, without interruption to the navigation, either during or after the enlargement, will be entirely avoided.



Of the comparative cost of deepening the old canal for this distance, and that of the plan here proposed, it will not be possible to speak without an actual survey and estimate by a competent engineer. It is suggested that this be done before taking further steps for the enlargement of this canal. Of the superior efficacy, convenience and utility of the proposed plan there can be no doubt.

SAMUEL KEEFER, *M. Inst. C. E.*

BROCKVILLE, 17th February, 1885.

OTTAWA, 27th February, 1889.

SIR,—The breach that occurred on the 11th of October last in the south bank of that part of the Cornwall Canal between Mille Roches and Moulinette, drew forcible attention to the insecurity of certain portions of the made banks on the summit level of that canal.

When the work of enlarging and deepening it was placed under contract, provision was made that the widening might be done on either side that would be most likely to improve the line—that is to say, that although the widening was intended to be done principally on the north side of the present channel, it was thought that some salient or prominent points could, with advantage to the general line, be in part removed.

The material excavated in widening and deepening the prism was, of course, to be placed on the south or river side of those places where the made banks of the canal are close to the margin of the river.

The casualty above mentioned, and the information subsequently obtained have, however, shown that it would be injudicious to cut into the north or canal side of the south or river bank; consequently, the widening must be done wholly on the north or landward side, and the line of the south bank allowed to remain undisturbed and the slope on the canal side continued down to the new bottom line, at the same angle as at present.

This conclusion has been arrived at by ascertaining from some of the old contracts how the banks on the St. Lawrence Canals were intended to be formed, and it is unlikely that they would be made much different from the manner therein described, which is as follow:—"All the best earth for making tight banks must be placed in the front or middle part of the same, that of inferior quality in rear. In forming the bank, the earth, if carried by carts, must be laid in courses not exceeding 12 inches, and all the best material must be placed in the front or middle of the bank." The information received from various reliable sources leads to the impression that certain precautionary measures were adopted in preparing the seats for some of the banks; all of them were, however, no doubt formed as above stated.

S. Keefer, Esq., C. E., in a letter addressed to this Department, states that he was assistant engineer on the work during the formation of the Cornwall Canal, and on several occasions, public and otherwise, "claims the privilege of contributing the facts in relation to the formation of the banks, &c.," of the stability of some of which he entertains grave doubts in case of deepening the present line of canal.

An assistant engineer or resident officer, so long engaged in duties connected with carrying out the works, is doubtless in a good position to enable him to fully describe how important banks upon the line were actually made: hence, positive statements by a gentleman thus possessed of the facts are well worthy of careful consideration.

He states that "for two miles along the bank of the Long Sault Rapids the soil is of strong clay and gravel, with stones and boulders imbedded in it, and is admirably adapted for making a strong and permanent embankment between the canal and the swift current of the river—the outer edge of which is well protected by the boulder stones taken out of the excavation for the canal."

The above is fully borne out by the present condition of the bank.

Eastward of the rapids "to Mille Roches, the line is laid in side cutting, mostly sand and clay in alternate layers, requiring great care in the selection and disposal of the material going into the embankment, in order to render it impervious to water.

Springs of water were also found in the base of the embankment, which gave much trouble," &c., &c.

To meet the apprehended difficulties on certain parts of the latter stretch of the canal within a distance of  $3\frac{1}{4}$  miles, Mr. Keefer suggests the expediency of converting what is called the "Sny," or north branch of the river, into a navigable channel by means of dams—one between the head of Sheik's Island and the south bank of the canal, and another extending from the foot of the island to the canal bank, then cutting a channel-way at both places of a capacity suited to the free passage of vessels.

It is not stated whether it is contemplated to place the dams at the narrowest part of the "Sny," and use the present towing-path, with a bridge over each of the openings for the channel; or of placing the dams obliquely, and in a position that would make them correspond as nearly as possible with the line of those parts of the island and canal bank with which they connect.

If the upper dam were made at the place where Sheik's Island and the canal bank are nearest to each other it would be about 450 feet long, and part of it 30 feet high; but if made on a line suited to the south bank of the canal and the north-west point of the island it would require to be about 900 feet long, and part of it also 30 feet in height.

If the lower dam were made at the narrowest place of that part of the north channel it would be about 500 feet long, but if made slightly oblique, so as to range better with the line of the canal bank and the island, it would be 800 feet long, and in either case it would in part be 45 feet high.

The shore along the north side of Sheik's Island has a very tortuous and irregular outline, so that to make anything like a suitable towing-path along it would be attended with a vast deal of uncertainty, besides expense; still, were this not done, in the case of making the "Sny" the navigable channel, a swing bridge would be required for canal purposes over each of the openings made in the bank, instead of one swing bridge for public travel across the canal at Moulinette.

Having already stated how it is proposed to enlarge and deepen the present canal, and the manner in which the material excavated is intended to be disposed of, viz., to strengthen the weakest and least secure parts of the present banks, or those parts of them that are closest to the margin of the river, the aggregate extent of which, there is good reason to believe is less than one-third of the whole distance, or less than three times the length of the two dams that would be required to connect Sheik's Island with the banks of the canal.

Those who have given careful attention to such matters, and are free to deal with the question on its merits, will scarcely fail to observe that dams of such a height, made otherwise of moderate dimensions, in the ordinary way, of the class of material of which some of the banks are represented to consist, would not be likely to receive a favorable impression of their security. In fact, they might reasonably be lead to the conclusion that the adoption of the proposed means to meet uncertain risks might result in others quite as perplexing, if not even of a still more formidable kind, unless precautions were taken, other than usual, for even banks of the height required.

The materials described by Mr. Keefer as found in side-hill cuttings when forming the canal, although not very suitable for making banks in the usual way, are, nevertheless, of a nature that when thoroughly mixed by bucket dredging-machines, then carried and placed in the manner described for proceeding with the works of enlargement, will form moderately good banks—that is, the north half of the channel-way is to be made to the required width and depth during the first season's operations, and the material removed is to be placed on the south or river side of the south bank by derricks rigged so that the box or shell containing it is lowered at least 10 feet below the top of the towing-path before it is dumped at the outer edge of the bank slope. At places where the present banks are close to the margin of the river, and the water alongside more than 5 feet in depth, a rough class of narrow crib-work will be placed to keep the dredged material in position until it is consolidated. The whole of the banks are afterwards to be well protected by a facing of stone.



The first season's operations will strengthen and widen out the bottom part of the bank before the work of deepening has approached nearer than 45 feet to the inner slope of the south bank. The deepening of the south half of the channel will be proceeded with the following season, and the material placed where required to further widen out and strengthen the banks. The inner or north side of them will not in any way be interfered with, further than continuing the slope down to the bottom at the same angle that it is at present.

It is no doubt true that placing the dredged material on the outer side is not the position where it would be most serviceable to banks of the description these are represented to be; still, the material will have a sectional area and extent, and be of a nature that when fully consolidated it would almost, if not altogether, retain the water in the canal, were the old banks opposite the respective places, where it is used, removed altogether.

Of the feasibility, efficiency and safety of enlarging the present canal in the manner described in the specification on which the work is let, the slightest doubt is not entertained by me; but as regards forming the "Sny," or north branch of the river, into a navigable channel, by means of dams at both ends of Sheik's Island, it must be confessed that my perception is quite as obtuse as was that of "the late John B. Mill," who, it appears, "failed to see the importance of it."

It is quite true that the volume of water that passes down the "Sny" is very small, compared with the main body of the River St. Lawrence; at the narrowest place immediately below the rapids the sectional area of the water-way at the lowest stage of the river is about 600 square feet, all of which passes through the dam at Moulinette, and the openings made in it.

When the river is at its high stages the volume that passes down the "Sny" is of course proportionately greater. In January, 1888, during an ice-jam, large quantities of ice passed down the north branch and destroyed in a great measure the mills and dam at Moulinette. If there had been a dam at that time at the north-west point of the island it is fully believed that no one can say, with any degree of certainty, what would have been the result, nor indeed what would be the effect, at any time, of closing the north branch of the river.

The St. Lawrence is on too grand a scale to admit of the probable result of interference with it to be even approximated by the use of formulæ fairly applicable to ordinary streams.

It is a well known fact that the river has been seriously affected by causes either little understood or altogether ignored by those desirous of accomplishing certain objects—apparently irrespective of ulterior results.

The effect of cutting loose a sheet of ice in a bay, then swinging it across the channel, has been known to lead to the drowning out for a time of a considerable tract of land along the margin of the river, and the closing of a branch of the river at the head of the Beauharnois Canal is well known to have led to a vast deal of trouble and an outlay for land damages of nearly \$400,000.

It is true that the branch of the river above mentioned was much larger than the "Sny" which Mr. Keefer now recommends to be closed; still, the latter is in the same direction as the former. Besides, no matter what the effect might be, a case would be opened that might lead to complications with a foreign country.

As full information has now been obtained relative to how the banks were made and the class of material in them, no doubt need be entertained of their being made secure, without resorting to the formation of a large pond, that could not by any possibility benefit the navigation, especially as it would be nearly two miles from the upper end of the canal and at least six miles from its lowest end, where the water-way in both cases is throughout of the usual sectional area.

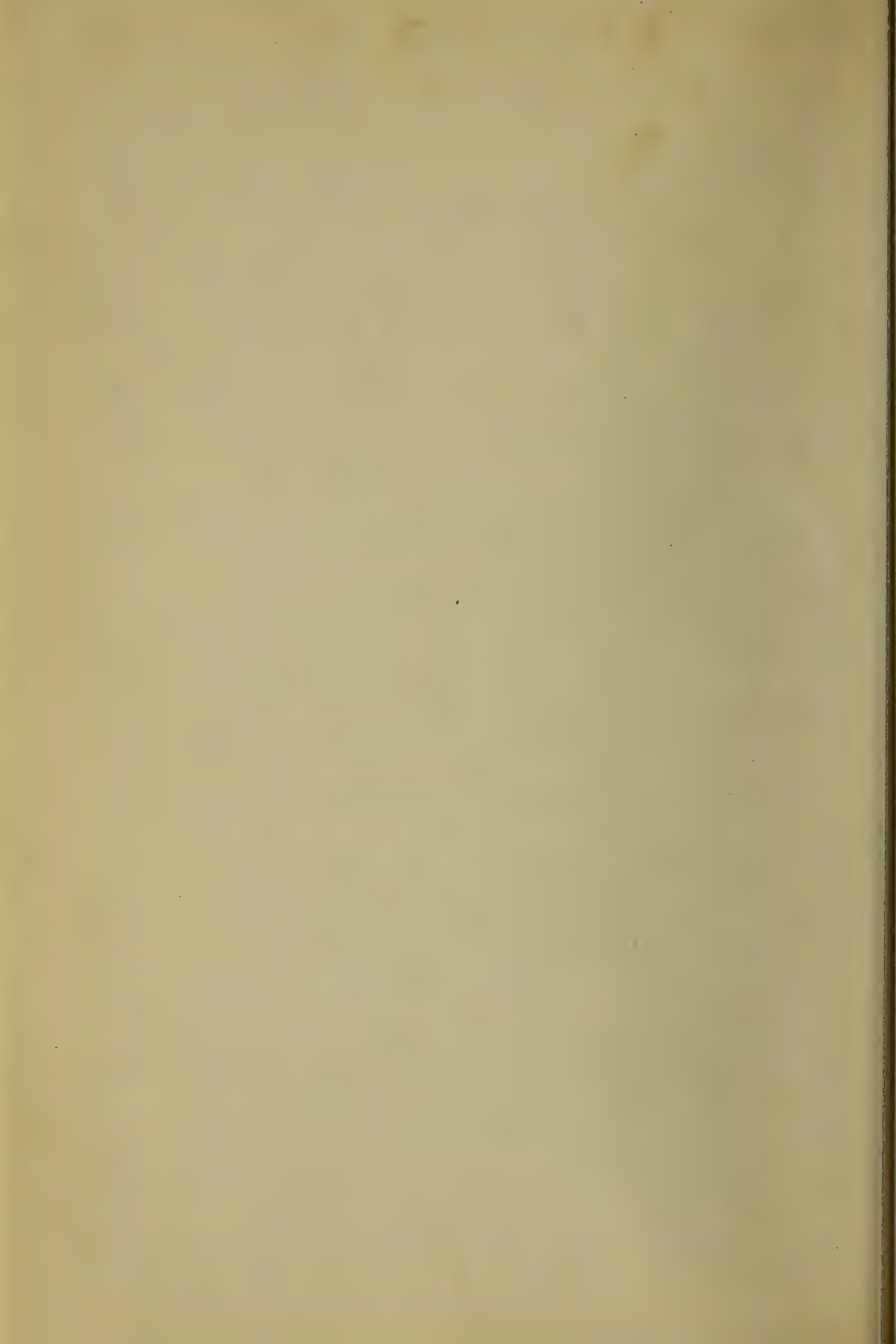
It is therefore presumed that the work of enlargement and deepening will be proceeded with and carried out as provided for in the respective contracts entered into with the Government.

I have the honor to be, Sir, your obedient servant,

The Secretary of Railways and Canals.

JOHN PAGE, *Chief Engineer.*





## RETURN

(49d)

To an ADDRESS of the SENATE, dated the 26th March, 1888, for a detailed statement of all expenditure in maintaining, repairing and operating the Welland Canal, for the years 1870, 1877, 1885, 1886, 1887, and to the 1st day of January, 1888, giving the names of all employees, the amount paid each as salary or wages, the number of days each was employed, keeping each month separate, the amount of allowance, if any, for house rent, horse hire, or travelling expenses to superintendent, deputy superintendent, foremen or overseers; also the duties performed by each employee and how and where employed, if deputy superintendents, giving that portion of canal under the charge of each, if foremen or overseers, giving on what part or section of canal they are employed; if lock masters, giving the number of lock; if bridge tender, giving the name of bridge; if carpenters, masons or laborers, giving the division or portion of canal on which employed, keeping separate the expenditure and names of employees on what is known as the old and the new canal as far as possible.

Also copies of all time lists, pay lists, and vouchers, used in paying the employees, keeping each month separate for the above named years.

Also copies of all tenders received by the Government for the erection of the custom house and post office building at Port Colborne; also copies of plans and specifications and a detailed statement of material used in, and the cost of erecting the said building in the year 1887.

Also copies of all correspondence between the Minister of Railways and Canals, or any officer of his department, and the Superintendent of the Welland Canal giving instructions for erecting the custom house and post office at Port Colborne.

Also copies of all correspondence and plans and specifications and instructions to the Superintendent of the Welland Canal by the Minister of Railways and Canals, or by any officer of that department, for the erection of a wharf or dock west of the lock in Port Colborne; also a detailed statement of the material used and cost of said wharf

or dock; also giving the purposes said wharf or dock was built for and what it is used for.

Also a detailed statement of the cost of wrecking pump purchased for the Welland Canal, giving the date of purchase, the number of days the said pump has been used in each year, and date of such service for canal purposes; if for private purposes, giving the date of such service and the amount received by the Government for such service.

Also giving a detailed statement of the cost of diving armor purchased for the Welland Canal, and giving the number of days it has been used and date of such service in each year.

Also giving a detailed statement of the amount received by the Government for the use of said diving armor when used for private purposes and not for the Government service.

By Command.

HECTOR L. LANGEVIN,

*Acting for the Secretary of State.*

OTTAWA, 5th April, 1889.

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NOTE.—*The Joint Committee of both Houses of Parliament ordered the printing of the following extracts only: Expenditure from the 1st July, 1869, to the 1st July, 1870, and from the 1st July, 1886, to the 1st January, 1888.*

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OTTAWA, 17th January, 1889.

SIR,—For the purpose of completing a Return to the Senate, moved for by the Hon. Mr. McCallum, I am directed to request that you will be good enough to furnish the following information:

1. Copies of instructions received from the Department for the erection of the custom house and post office at Port Colborne.

In this matter the departmental number of letter and date will be sufficient.

2. The same information in regard to the erection of a wharf or dock west of the lock in Port Colborne. Statement of the material used and cost of said wharf or dock. Purposes for which said wharf was built and what it is used for.

Cost in detail of wrecking pump purchased for the Welland Canal. Date of purchase. The number of days said pump has been used for canal purposes in each year and date of such service.

If used for private purposes the dates and the amount received by Government for such service. Cost in detail of diving armor purchased for the Welland Canal. Number of days used in each year and date of such service.

Also detailed statements of the amount received by the Government for the use of said diving armor when used for private purposes and not for the Government service.



I am to request that the information herein specified may be rendered with as little delay as possible.

I am, sir, your obedient servant,

A. P. BRADLEY, *Secretary*.

W. ELLIS, Esq., Superintendent Welland Canal.

OTTAWA, 18th January, 1889.

SIR,—In further reference to the subject of my communication of yesterday's date, calling for certain information needed to complete a Return to the Senate (Mr. McCallum's), I am directed to request that you will also furnish reply to the following additional points :

1. Copies of all tenders received by the Government for the erection of the custom house and post office building at Port Colborne.

2. Copies of plans and specifications and a detailed statement of the material used in, or the cost of erecting the said building in the year 1887.

3. Also copies of all correspondence and of plans and specifications and instructions to the superintendent of the Welland Canal by the Minister of Railways and Canals or by any officer of that department, for the erection of a wharf or dock west of the lock in Port Colborne.

The information sought under this query (No. 3) to be taken in place of that called for yesterday on the same subject.

Your early reply to this matter is particularly requested.

I am, sir, your obedient servant,

A. P. BRADLEY, *Secretary*.

W. ELLIS, Esq., Superintendent Welland Canal.

SUPERINTENDENT'S OFFICE, WELLAND CANAL,

ST. CATHARINES, 26th January, 1889.

SIR,—In answer to your letters, No. 77503 and 77513, I beg to submit the following information:—

1. I cannot furnish copies of instructions from the department for the erection of canal tolls collector's office, custom house, inland revenue and post office buildings at Port Colborne, nor for the wharf or dock at that place, any more than I can for many other essential works that I have built from time to time after consultation with the Chief Engineer and my experience of what was necessary to complete the equipment of this important work in every respect to insure thorough efficiency and quick facilities, and in this case loud complaints had been made for years past by captains and others using the canal of the want of proper accommodation, conveniently situated, after the former substantial canal toll and custom house and inland revenue building had been pulled down, to admit of the canal enlargement, necessitating the removal of the staff into the substituted little, unsuitable hired rooms over a store, which were very inconvenient, unsafe from fire risks and bearing a high annual rent, which the Government had to pay.

The plans and specification for the building, after completion, were forwarded to the chief architect in Ottawa, in whose office they will be found.

The materials used were brick and stone, and all others throughout were of the very best kind; the roof was covered with fire-proof iron shingles, fire-proof safes and vaults furnished, where the canal tolls, custom house, inland revenue and post office papers are now properly and safely kept.

As soon as the inhabitants heard that a new Government building was about to be built to replace the old one, they memorialized the Post Office Department to have post office accommodation provided under the same roof, and this was done without extra expense by a re-arrangement of the internal partitions, and the public were greatly pleased at having modern and convenient post office accommodation, while captains and crews of vessels now get large numbers of letters addressed there, which they now get quickly, without being detained by having a long distance to

go for them as heretofore, and the Government saves the additional annual rent they have had for so many years previously to pay for unsuitable and inconvenient accommodation in a wooden building, dangerously located for fire risks.

The tenders received for the erection of the building, in answer to public advertisements, well circulated, were as follows:—

T. L. Nichols, Welland.....	\$3,856 75
R & J. Miller, Port Elgin.....	3,527 00
Dickinson & Sues, Humberstone.....	3,280 00

The lowest of the above was accepted, and the work thoroughly well built and finished. Copies of the tenders accompany this. I may add the new building is located most conveniently for all the purposes required, and furnishes the last and only required office accommodation to complete the canal service, and for which the various inspectors, viz, H. B. Witten for canal tolls, Mewburn of customs, and Sweetman of post offices, have been loud in their praises and thanks for the improved and safe accommodation so long and so urgently previously needed.

2. No plans or special instructions were received for the erection of the wharf or dock at Port Colborne, but the urgent want of such equipment or accommodation had been often discussed with the Chief Engineer; and it proves now to be too small, and should be increased. When large vessels come into the harbor in distress it is the only place they can conveniently lighten or tie up for repairs, so as to be cut of the way of others, and when the harbor is crowded, as is sometimes the case before, during and after storms, tugs have to leave their berths on the west side of the harbor to make room for vessels, and tie up to new wharf on east side and coal up there, and thus give the best and safest berthage on the west side to the large class of vessels now using the canal and that run into the harbor in foul weather for shelter.

I enclose herewith statements of the material used and cost of the wharf or dock, as requested.

3. I have furnished the particulars asked for (on a separate sheet enclosed herewith) of the wrecking pump, except the information about the number of days and dates when we used the same, which we have not kept a record of. It has been used for pumping out lock pits and other works, and has saved the Government thousands of dollars.

4. Exactly the same answer is applicable to the case of the diving armor or apparatus.

I may add until I purchased the pump and these diving suits, there were no such appliances nearer than Detroit and Kingston.

Your obedient servant,

WILLIAM ELLIS, *Superintendent.*

A. P. BRADLEY, Esq., Secretary Department Railways and Canals.

COPIES OF TENDERS RECEIVED FOR THE ERECTION OF THE CANAL  
TOLL COLLECTOR'S, CUSTOM HOUSE AND POST OFFICE  
AT PORT COLBORNE, 14TH MAY, 1887.

WELLAND, ONT., 14th May, 1887.

DEAR SIR,—I, the undersigned, do herein agree to furnish and build the proposed canal tolls office and custom house, according to plans and specifications, for the sum of \$3,846.75.

Yours truly,

T. L. NICHOLS,

W. ELLIS, Esq., Superintendent Welland Canal.



R. AND J. MILLER, BUILDERS AND CONTRACTORS,  
PORT ELGIN, ONT., 13th May, 1887.

SIR,—Having examined the plans and specifications of the proposed canal tolls office and custom house proposed to be built at Port Colborne, we hereby offer and undertake to erect and complete the same for \$3,527.

R. & J. MILLER.

W. ELLIS, Esq., Superintendent Welland Canal.

HUMBERSTONE, ONT., 14th May, 1887.

SIR,—Having examined plans and specifications for custom house, canal tolls office and post office to be erected at Port Colborne, we beg to tender for the same; that is to furnish all material and do all work, according to plans and specifications, for the sum of \$3,280.

Yours respectfully,

DICKENSON & SUESS.

W. ELLIS, Esq., Superintendent Welland Canal.

#### WELLAND CANAL.

*DETAILED statement showing the cost of erecting wharf or dock at Port Colborne, and material used therein.*

Carpenters, handymen, laborers, teams, pile driving, &c.	\$1,262 67
6,080 lineal feet oak piling, at 15 cents .....	912 00
1,600 do 10 x 12, 8 x 12, 6 x 12, at \$27 per M....	43 20
2,240 feet pine, 6 x 10, at \$17 per M.....	38 08
34,157 do 6 x 12, 24, 3 x 12, 1 x 12, 12, at \$16 per M.	546 51
1,643 lbs. scow bolts, at 5 cents.....	82 15
535 lbs. cast snubbing posts caps, at 3½ cents.....	18 72
John Mathe's account, nails, spikes, auger, &c.....	29 29
do do supplies for men living on Govern- ment scow.....	15 31
<b>Total .....</b>	<b>\$2,947 93</b>

WELLAND CANAL OFFICE, ST. CATHARINES, 25th January, 1889.

#### WELLAND CANAL.

*DETAILED Statement of the cost of steam wrecking pumps and boiler; also receipts derived for the hire of same.*

November, 1883, steam wrecking pump purchased from Silsby Manf. Co., Seneca Falls, N. Y.....	\$2,250 00
15th November, 1884, Quincy boiler and suction pipes, purchased from Inglis & Hunter, Toronto.....	750 00
<b>Total.....</b>	<b>\$3,000 00</b>

*RECEIPTS for hire or use of steam wrecking pump from the parties mentioned below.*

18th August, 1884, Graham, Horne & Co.—

2 days steam wrecking pump, at \$15 .....	\$ 90 00
Plank and lard oil .....	4 25
	<b>\$ 94 25*</b>



1st October, 1884, Sylvester Neelin—

2½ days steam wrecking pump, at \$45.....	\$112 50	
2½ do wrecker, at \$3 .....	7 50	
2½ do engineer, at \$1.75.....	4 38	
		\$ 124 38*

31st July, 1886, Carter Bros.—

1 day steam wrecking pump.....	\$ 40 00	
1 do engineer and keeper .....	10 00	
		\$ 50 00†

Total..... \$ 268 63

\* Returned Secretary Department of Railways and Canals, 29th June, 1886. Paid over to Auditor General, 21st July, 1886.

† Returned Secretary Department of Railways and Canals, 29th June, 1887. Paid over to Auditor General, 11th July, 1887.

WELLAND CANAL OFFICE, ST. CATHARINES, 25th January, 1889.

#### WELLAND CANAL.

*DETAILED statement of the cost of diving armor and receipts derived for the hire of same*

July, 1880, purchased from H. Date, Montreal, diving armor, &c..... \$476 50

*RECEIPTS for hire or use of diving armor from the parties mentioned below.*

31st July, 1886, Carter Bros., 8 days, at \$5 per day ..... \$40 00\*

7th October, 1887, Shields & Carrol—

2 days.....	\$10 00	
2 do diver.....	6 00	
		16 00*

29th October, 1886, Rayner & Co., 2 days, at \$5.... 10 00\*

26th do 1887, Schr. "Oliver Mowat"..... 14 75†

30th November, 1887, Schr. "F. Leighton"..... 12 00†

Total..... \$ 92 75

\* Returned Secretary Department of Railways and Canals, 29th June, 1887. Paid over to Auditor General, 11th July, 1887.

† Returned Secretary Department of Railways and Canals, 29th June, 1888. Paid over to Auditor General, 5th July, 1888.

WELLAND CANAL OFFICE, ST. CATHARINES, 25th January, 1889.

OTTAWA, 8th July, 1887.

SIR,—Replying to your letter of the 9th March last, stating that the probable amount required for the repairs on the Welland Canal, for the fiscal year ending the 30th June, 1888, would be \$31,448.

I am directed to inform you, that Parliament at its last Session, made an appropriation of \$76,000 for the repairs required on the Welland Canal, and to authorize you to expend that sum for the purpose mentioned.

Although the expenditure of this amount is hereby authorized, it will be necessary for you to communicate with the Chief Engineer of Canals, as to what repairs are to be done and also as to the mode of executing them.

I am, sir, your obedient servant,

A. P. BRADLEY, *Secretary.*

W. ELLIS, Esq., Superintendent Welland Canal, St. Catharines.

## WELLAND CANAL.

VOUCHERS - July, 1869, to 30th June, 1870.

Pay-list in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 1, during the month of July, 1869, to Carpenters on Repairs, Lock Gates, Bridges, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	July 1869	E. Grant .....	22 days...	2 00	44 00
do .....	do	James Dell .....	24 do ...	1 25	42 00
do .....	do	John Hemming .....	27 do ...	1 25	47 25
do .....	do	James Ferris .....	25 do ...	1 50	37 50
do .....	do	Wm. Fluellan .....	24 do ...	1 00	24 00
Team hauling .....	do	Chas. Hill .....	22½ do ...	3 00	67 50
					262 25

PAY LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of July, 1869, to Banks, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	July 1869	James Smith .....	14 days...	1 00	14 00
do .....	do	James Gunning .....	15½ do ...	1 00	15 25
do .....	do	John Fisher .....	18½ do ...	1 00	18 50
do .....	do	Wm. Laughlan .....	14½ do ...	1 00	14 25
do .....	do	Edward Manly .....	15½ do ...	1 00	15 25
Horse towing scow .....	do	J. McMahon .....	4 do ...	1 00	4 00
do do .....	do	Jos. Upper .....	1½ do ...	1 00	1 50
Laborer .....	do	James Clarke .....	24½ do ...	1 00	24 50
do .....	do	George Fisher .....	19½ do ...	1 00	19 50
Diving in Guard Lock, Thorold and Allanburgh .....	do	James Flewellan .....			40 00
Laborer .....	do	J. McMahon .....	27 days...	1 00	27 00
do .....	do	Patrick McDonald .....	17 do ...	1 00	17 00
do .....	do	James Murphy .....	13 do ...	1 00	13 00
do .....	do	Wm. Walker .....	2½ do ...	1 00	2 50
do .....	do	Silas Rose .....	1½ do ...	1 00	1 50
Team hauling .....	do	Duncan Doan .....	1 do ...	3 00	3 00
Laborer .....	do	Wm. Assell .....	27 do ...	1 00	27 00
do .....	do	John Howe .....	3 do ...	1 00	3 00
do .....	do	Micheal Maloy .....	26 do ...	1 00	26 00
do .....	do	John Collins .....	27 do ...	1 00	27 00
Making measurements, &c. ....	do	Edward Gardiner .....	4 do ...	3 00	12 00
					325 75



PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2  
Division No. 3, during the month of July, 1869, to Laborers on Repairs, Banks,  
&c., from Thorold to Colborne, chargeable to Ordinary Repairs.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer.....	July, 1869	Jos. Numan.....	25½ days...	1 00	25 50
do .....	do	Jas. Hurdman.....	23½ do ...	1 00	23 50
do .....	do	Tim. Kennedy.....	14½ do ...	1 00	14 75
do .....	do	Pat. Kelly.....	20 do ...	1 25	25 00
do .....	do	John Corbett.....	18½ do ...	1 00	18 25
do .....	do	Ben. Redferrin.....	17½ do ...	1 00	17 25
do .....	do	Michael McAuliffe.....	18½ do ...	1 00	18 25
do .....	do	Thos. Dorrington.....	23 do ...	1 00	23 00
do .....	do	Abram Lee.....	8 do ...	1 00	8 00
Team hauling.....	do	Wm. Hannah.....	2 do ...	2 50	5 00
do .....	do	Dan. Kelly.....	10 do ...	2 50	25 00
Setting snubbing posts, Col- borne.....	do	Peter Wintermoot.....	19 do ...	1 25	23 75
Laborer.....	do	Joseph Tredale.....	5 do ...	1 00	5 00
Team hauling.....	do	David Remay.....	1 do ...	2 50	2 50
Hauling sand.....	do	Sam. Cook.....	¼ do ...	2 00	0 75
Painting lock-gates and bridges, Port Colborne.....	do	Louis Guager.....	7 do ...	1 75	12 25
do do .....	do	do .....	10 do ...	1 50	15 00
do do .....	do	do .....	3 do ...	1 25	3 75
					266 50

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2,  
Division No. 4, during the month of July, 1869, to Labor, &c., on Repairs of  
Break of Embankment at Dunnville, chargeable to

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Labor .....	July, 1869.	John Patterson.....	26 days...	2 00	52 00
do .....	do	Wm. Simpson.....	7½ do ...	1 25	25 12
do .....	do	John Henderson.....	15½ do ...	1 00	
do .....	do	John Henderson.....	8 do ...	1 25	21 75
do .....	do	Wm. Cook.....	11½ do ...	1 00	
do .....	do	John Thrush.....	19½ do ...	1 00	19 25
do .....	do	John Thrush.....	2 do ...	1 00	2 00
do .....	do	James Thrush.....	18 do ...	1 00	18 00
do .....	do	Thos. McKey.....	4 do ...	1 00	4 00
Team hauling.....	do	John Secord.....	6 do ...	2 50	15 00
Horse and man .....	do	John Reid.....	6 do ...	1 75	10 50
Laborer.....	do	John Lucy.....	7 do ...	1 00	7 00
Team hauling.....	do	Alfred Bourke.....	10 do ...	2 50	25 00
Laborer.....	do	Hiram Fite.....	5 do ...	1 00	5 00
do .....	do	Horatio Jennings.....	20½ do ...	1 00	20 25
do .....	do	Rolland Secord.....	6 do ...	1 00	6 00
do .....	do	E. Hepson.....	4½ do ...	1 00	4 50
do .....	do	Martin Fite.....	17½ do ...	0 62½	11 09
do .....	do	Wm. Wilson.....	1½ do ...	1 00	1 50
Team hauling and labor.....	do	Wm. Brooks.....	1 do ...	1 00	4 75
Carpenter.....	do	Robert Stevens.....	1½ do ...	2 50	
Horse and man .....	do	Patrick Kelly.....	4½ do ...	1 25	5 62
Foreman on scow.....	do	Wm. Kelly.....	7 do ...	1 25	8 75
Laborer.....	do	James Feeney.....	6½ do ...	1 00	6 50
do .....	do	James Feeney.....	6 do ...	1 00	6 00
do .....	do	Alex. Hannah.....	6 do ...	1 00	6 00
do .....	do	C. Lynch.....	5½ do ...	1 00	5 75



## PAY-LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	July, 1869	John Shanahan.....	2 days ..	1 00	2 00
do .....	do	Michael Shanahan.....	6 do ..	1 00	6 00
do .....	do	Alex. Brown.....	3 do ..	1 00	3 00
do .....	do	Francis Oades.....	5 $\frac{1}{2}$ do ..	1 00	5 25
do .....	do	Hank Nigar.....	1 $\frac{1}{2}$ do ..	1 00	1 75
do .....	do	Philip Gunnel.....	4 $\frac{1}{2}$ do ..	1 00	4 50
do .....	do	James Clancy.....	6 do ..	1 00	6 00
do .....	do	Robt. Crum.....	3 $\frac{1}{2}$ do ..	1 00	3 50
do .....	do	Jacob Riter.....	6 do ..	1 00	6 00
do .....	do	James Goodfellow.....	3 $\frac{1}{2}$ do ..	1 00	3 50
do .....	do	Archibald Oades.....	5 $\frac{1}{2}$ do ..	1 00	5 25
do .....	do	Ambrose McIntosh.....	6 do ..	1 00	6 00
do .....	do	Wm. Smith.....	4 $\frac{1}{2}$ do ..	1 00	4 50
do .....	do	Thos. Lucin.....	3 do ..	1 00	3 00
Foreman on scow .....	do	Jos. Feagan.....	9 do ..	1 50	13 50
Laborer on do .....	do	John Corbett.....	9 do ..	1 00	9 00
do .....	do	Jos. Ferguson.....	6 $\frac{1}{2}$ do ..	1 00	6 25
do .....	do	Ben. Redfern.....	8 do ..	1 00	8 00
do .....	do	Tim. Kenney.....	6 $\frac{1}{2}$ do ..	1 00	6 50
do .....	do	Michael McAuliffe.....	6 $\frac{1}{2}$ do ..	1 00	6 50
do .....	do	John Morin.....	7 $\frac{3}{4}$ do ..	1 00	7 75
do .....	do	Tim Sullivan.....	7 $\frac{1}{2}$ do ..	1 00	7 50
do .....	do	Patrick Murphy.....	7 do ..	1 00	7 00
do .....	do	Bernard Flynn.....	7 $\frac{3}{4}$ do ..	1 00	7 75
do .....	do	Peter Seburn.....	7 $\frac{3}{4}$ do ..	1 00	7 75
do .....	do	John Moriarty.....	5 $\frac{3}{4}$ do ..	1 00	5 50
do .....	do	Michael Hunt.....	6 $\frac{1}{2}$ do ..	1 00	6 50
do .....	do	James Wilson.....	6 $\frac{1}{2}$ do ..	1 00	6 50
do .....	do	Thos. Woods.....	5 $\frac{1}{2}$ do ..	1 00	5 50
Horse towing scow from Junction to Port Colborne & back .....	do	Joseph Fegan.....			5 00
Laborer .....	do	James Smith.....	7 days...	1 00	7 00
do .....	do	James Gunning.....	7 do ..	1 00	7 00
Laborer on scow .....	do	Thos. Hutchinson.....	7 do ..	1 00	7 00
do .....	do	Wm. Boyle.....	7 do ..	1 00	7 00
do .....	do	Ben. Baker.....	6 do ..	1 00	6 00
do .....	do	Robt. Morrison.....	5 do ..	1 00	5 00
do .....	do	Solomon Carle.....	4 $\frac{1}{2}$ do ..	1 00	4 50
do .....	do	Martin Jassey.....	4 do ..	1 25	5 00
do .....	do	Tim. Sullivan.....	4 do ..	1 25	5 00
do .....	do	Geo. Latimer.....	4 do ..	1 25	5 00
do .....	do	Wm. Ward.....	3 do ..	1 25	3 75
Two months at Dunnville break, at \$15 per month, \$30, wages as lock tender paid, and another man employed during his absence..	do	Ben. McMahon.....	2 months	15 00	30 00
Laborer .....	do	Louis Fox, sen.....	5 days...	1 00	5 00
do .....	do	Louis Fox, jun.....	5 do ..	1 00	5 00
do .....	do	Nelson Bourk.....	5 $\frac{1}{2}$ do ..	1 00	5 50
do .....	do	Wm. Rodgers.....	2 $\frac{3}{4}$ do ..	1 00	2 75
do .....	do	Robt. Stevens.....	3 do ..	1 00	3 00
do .....	do	Patk. Warren.....	4 $\frac{1}{2}$ do ..	1 25	5 63
do .....	do	Geo. Hicks.....	4 $\frac{1}{2}$ do ..	1 00	0 50
do .....	do	Patk. Hunter.....	4 $\frac{1}{2}$ do ..	1 00	4 50
do .....	do	Edwd. Cooper.....	3 $\frac{1}{2}$ do ..	1 00	3 50
do .....	do	Robt. Quinn.....	7 do ..	1 00	7 00
Team hauling.....	do	Wm. Brooks.....	2 $\frac{1}{2}$ do ..	2 50	5 63
Overseer of works, break at Dunnville .....	May, June, July.....	O J. Phelps.....	May, 6 d. June, 26 d. July, 8 d. — 40 d.	4 00	160 00
Laborer .....	July, 1869.	John Scott.....	24 days...	1 00	24 00
do .....	do	John Hughes.....	19 do ..	1 00	19 00
do .....	do	Alonzo Fite.....	3 do ..	1 00	3 00
do .....	do	Peter Collins.....	5 $\frac{1}{2}$ do ..	1 00	5 50

817 34

## ACCOUNTS.

Date.	DEPARTMENT OF PUBLIC WORKS.	\$ cts.	\$ cts.
1869.	DR. TO R. QUIDER.		
July 31.....	To 2 days' caulking scow, at \$2.50.....	5 00	
do 31.....	Oakum .....	1 00	6 00
	DR. TO A. McDONALD.		
July 31.....	To 49 days' board, men, at 50 cts.....		24 50
	DR. TO DAVID PRICE.		
July 31.....	To 27 weeks and 2½ days' board, men, at \$3.....	82 00	
do 31.....	Horse keep and teamster.....	4 63	
do 31.....	Meals to men on break.....	3 18	89 81
	DR. TO TUG "P. BENNETT."		
July 31.....	To 8 days' work, at \$12 per day.....	96 00	
do 31.....	4½ cords wood, at \$3.....	12 75	
do 31.....	do do \$2.50.....	10 62	
do 31.....	Tallow and oil.....	2 36	121 73
	DR. TO WM. BRAUND & Co.		
May 29.....	To 2 dozen bolts.....	1 10	
June 7.....	½ gallon coal oil.....	0 25	
July 7.....	10 lbs. cut nails, 40 cts.; 1 wrought nails, 10 cts.....	0 50	
June 5.....	1 gallon can, 1 gallon lard oil, \$1.50.....	2 13	
do 9.....	1 lamp burner, 1 dozen lamp wicks.....	0 50	4 48
	DR. TO WELLAND RAILWAY Co.		
July 31.....	To transportation of iron used at Dunnville break—For cost of collecting old iron and freight on same, viz. :—		
do 31.....	1 foreman, \$3; 9 laborers, \$9; 3 laborers, \$4.50.....	16 50	
do 31.....	Use of engine, fuel, oil, &c.....	20 00	
do 31.....	1 engine driver, \$2.25; 1 fireman, \$1.50.....	3 75	
do 31.....	Freight on 3 cars old iron, at \$7.....	21 00	61 25

# ACCOUNTS chargeable to Welland Canal, Repairs, Dunnville Break.

Date.	Nature of Work.	\$ cts.	\$ cts.
1869.			
July 31.....	Alfred Bourke, 110 yds. gravel, at 60 cts.....		66 00
do 31.....	William Brooks, 105 do 60 cts.....		63 00
do 31.....	John Hammond, 92 do 60 cts.....		55 20
do 31.....	William Ward, 104 do 60 cts.....		62 40
do 31.....	Edward Brown, 50 do 60 cts.....		30 00
do 31.....	James Ramey, 10 meals, J. Feagan and men, at 25 cts.....		2 50
do 31.....	B. McMahon, 5 weeks, 5 days, board to men, at \$13 per month.....		17 15
do 31.....	Thomas Drake, repairs, 550 lbs. iron, at 4 cts.....		22 00
do 31.....	Robert McNeil, 44 days' board to men, at 50 cts.....		22 00
do 31.....	John McNeal, 38' do at 50 cts.....		19 00
do 31.....	R. Quider—		
	2 days' caulking scow, at \$2.50.....	5 00	
	Oakum.....	1 00	
			6 00
do 31.....	A. McDonald, 44 days' board to men, at 50 cts.....		24 50
do 31.....	David Price—		
	27 weeks, 2½ days' board to men, at 50 cts.....	82 00	
	Horsekeep and meals furnished.....	7 81	
			89 81
	Total.....		479 56
do 31.....	Tug "P. Bennett"—		
	8 days' towing scow, at \$12.....	96 00	
	4½ cords wood, at \$3.....	12 75	
	4½ do \$2.50.....	10 62	
	Tallow and oil.....	2 36	
			121 73
do 31.....	Wm. Braund & Co.—		
	2 doz. bolts, \$1.10; 2 qts. coal oil, 25 cts.....	1 35	
	10 lbs. cut nails, 40 cts.; 1 lb. wrought nails, 10 cts.....	0 50	
	10 galls. coal oil, \$2.13; lamp burner and wicks, 50 cts.....	2 63	
			4 48
do 31.....	Welland Railway Co.—		
	1 foreman, \$3; 9 laborers, \$9; 3 do., \$4.50.....	16 50	
	Use of engine, fuel, oil, &c.....	20 00	
	1 engine driver, \$2.25; 1 fireman, \$1.50.....	3 75	
	Freight on 3 cars old iron, at \$7.....	21 00	
			61 25
	Total.....		667 02

S. D. WOODRUFF, Superintendent.



PAY-LIST in duplicate, of persons employed on the Welland Canal, Sheet No. 2, Division No. 1, during the month of August, 18 9, to Carpenters on Repairs, Lock Gates, Bridges, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter.....	Aug. 1869	Edward Grant.....	4 nights 4½ days...	2 00	57 00
do .....	do	James Dell.....	4 nights 25½ days...	1 75	51 60
do .....	do	James Ferris.....	4 nights 23 days...	1 50	40 50
do .....	do	Wm. Flewallan.....	3 nights 24½ days...	1 12½	30 94
do .....	do	Wm. Smith.....	18½ do ...	1 50	27 75
do .....	do	David Walker.....	25½ do ...	1 50	38 25
do .....	do	Thos. Cadigan.....	4½ do ...	1 50	6 75
do .....	do	Harmon Plumsted.....	12½ do ...	1 50	18 75
Team hauling.....	do	Chas. Hill.....	25½ do ...	3 00	76 50
					348 06

PAY-LIST in duplicate of Persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of August, 1869, to Laborers on Repairs, Banks, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	
Laborer.....	Aug., 1869.	James Collier .....	15½ days...	1 00	15 50
Team hauling.....	do	Jas. Hamilton.....	2½ do ...	3 00	7 50
Diving, Lock No. 2, \$4; No. 3, \$2; No. 1, \$10.....	do	Edwd. Grant .....			16 00
Diving, Lock No. 1, stopping late, \$10; No. 18, \$2; No. 24, \$2.....	do	Jas. Flewallan .....			14 00
Laborer.....	do	Michael Maloy.....	24 days...	1 00	24 00
do .....	do	John Collins.....	24½ do ...	1 00	24 50
do .....	do	John Davis.....	12 do ...	1 00	12 00
do .....	do	Fred. Scheridon .....	12 do ...	1 00	12 00
do .....	do	George Fisher.....	10 do ...	1 00	10 00
do .....	do	Robt. Boyle.....	2 nights..	1 00	2 00
do .....	do	Wm. Wilson.....	2 do ...	1 00	2 00
do .....	do	Thos. Bradley, sen.....	2 do ...	1 00	2 00
do .....	do	B. Clarke.....	2 do ...	1 00	2 00
do .....	do	Dan. Meaghen.....	13 days...	1 00	13 00
do .....	do	Silas Rose.....	3 do ...	1 00	3 00
do .....	do	Peter Coons.....	½ do ...	1 00	0 50
do .....	do	James Smith.....	17 do ...	1 00	17 00
do .....	do	James Gunning.....	25 do ...	1 00	25 00
do .....	do	John Fisher.....	26 do ...	1 00	26 00
do .....	do	Wm. Laughlan.....	15 do ...	1 00	15 00
do .....	do	Edwd. Manly.....	26 do ...	1 00	26 00
do .....	do	James Clarke.....	25½ do ...	1 00	25 50
do .....	do	Patk. Garner.....	23 do ...	1 00	23 00
do .....	do	Michael Caffrey.....	23 do ...	1 00	23 00
do .....	do	I. McMahon.....	26 do ...	1 00	26 00
Horse, towing scow.....	do	do .....	17 do ...	1 00	17 00
Labor .....	do	Wm. Assell.....	26 do ...	1 00	26 00
Making measurements and maps.....	do	Edwd. Gardner.....	9 do ...	1 00	27 00
					436 50

PAY LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of August, 1869, to Laborers on Repairs Banks, &c., Thorold to Colborne, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer.....	Aug., 1869	Jos. Numan.....	25 $\frac{3}{4}$ days...	1 00	25 75
do .....	do	Jas. Herdman.....	22 $\frac{3}{4}$ do ...	1 00	22 50
do .....	do	Timothy Kennay.....	23 $\frac{3}{4}$ do ...	1 00	23 75
do .....	do	Patrick Kelly.....	26 do ...	1 25	32 50
do .....	do	John Corbett.....	26 do ...	1 00	26 00
do .....	do	Benjamin Redfern.....	26 do ...	1 00	26 00
do .....	do	Michael McAuliffe.....	26 do ...	1 00	26 00
do .....	do	Wm. Kelly.....	26 do ...	1 00	26 00
do .....	do	John Foster.....	21 $\frac{3}{4}$ do ...	1 00	21 75
do .....	do	Jas. Clancy.....	7 $\frac{3}{4}$ do ...	1 00	7 50
do .....	do	Timothy Sullivan.....	7 do ...	1 00	7 00
do .....	do	Thomas Dornington.....	24 do ...	1 00	24 00
do .....	do	Jos. Ferguson.....	2 do ...	1 00	2 00
Team hauling.....	do	Daniel Kelly.....	13 do ...	2 50	32 50
do .....	do	William Hannah.....	3 do ...	2 50	7 50
Repairing floats, Colborne....	do	Peter Winterwood.....	26 do ...	1 25	32 50
					343 25

### ACCOUNTS Chargeable to Welland Canal, Repairs, Dunnville Break.

Date.	Nature of Work.	\$ cts.	\$ cts.
1869. August....	William Brooks— 170 yards gravel delivered on embankment, at 60 cts.....	102 00	
	5 days, team blending gravel, at \$2.50.....	12 50	
	John Secord— 43 yards gravel delivered on embankment, at 60 cts.....	25 80	114 50
	5 days, team blending gravel, at \$2.50.....	12 50	
	Edward Brown, 150 yards gravel delivered on embkt., at 60 cts.....		38 30
	John Hammond, 195 yards gravel delivered on embkt., at 60 cts.....		90 00
	David Irwin, 136 yards gravel delivered on embkt., at 60 cts.....		117 00
	Eli Heffern, 28 yards gravel delivered on embkt., at 60 cts.....		81 60
	Mrs. Heffern, 80 yards gravel delivered on embkt., at 60 cts.....		16 80
	William Ward, 148 yards gravel delivered on embkt., at 60 cts.....		48 00
	Alfred Burk, 80 yards gravel delivered on embkt., at 60 cts.....		88 80
	John T. Johnson— 1 $\frac{1}{2}$ days caulking scow, at \$2.50.....	3 75	
	10 lbs. oakum.....	1 88	
	10 lbs. pitch.....	0 70	
	A. Galbrinth, jun., 106 meals furnished men, at 25 cts.....		6 33
	Total.....		26 50
			675 83

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 4, during the month of August, 1869, to Laborers on Repairs, Break of Embankment at Dunnville, chargeable to Extraordinary Repairs.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer, &c.....	Aug., 1869	John Patterson.....	27 days...	2 00	54 00
do .....	do ...	John Haniston.....	27 do ...	1 00	27 00
do .....	do ...	William Simpson.....	26 do ...	1 00	26 00
do .....	do ...	John Hughes.....	21½ do ...	1 00	21 50
do .....	do ...	John Scott.....	5½ do ...	1 00	5 50
do .....	do ...	James Willson.....	23 do ...	1 00	23 00
do .....	do ...	Horatio Jennings.....	10 do ...	1 00	10 00
do .....	do ...	William Brook, jr.....	5 do ...	1 00	5 00
In consequence of accident at break at Dunnville, \$50 is allowed as per letter No. 5223 of the 20th Aug., 1869..					
do .....	do ...	Robert Quinn.....	2 months.	25 00	50 00
Short, returned for.....	June, 1869	George Lattimore .....	19½ days...	0 25	4 94
Horse .....	Aug., 1869	John Reid.....	½ do ...	1 75	0 88
Laborer.....	do ...	John Scott.....	5 do ...	1 00	5 00
					232 82

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 1, during the month of September, 1869, to Carpenters on Repairs, Lock Gates, Bridges, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	Sept., 1869	En. Grant.....	5 nights, 19 days....	2 00	48 00
do .....	do ...	James Dall.....	1 night, 25½ days....	1 75	46 81
do .....	do ...	John Hemming.....	26 days...	1 75	45 50
do .....	do ...	Jas. Ferries.....	25 do ...	1 50	37 50
do .....	do ...	Wm. Flewallen .....	25½ do ...	1 12½	28 41
do .....	do ...	Wm. Smith.....	25½ do ...	1 50	38 63
do .....	do ...	Alex. Walker.....	16½ do ...	1 50	25 12
do .....	do ...	James Collins.....	25 do ...	1 00	25 00
Team on floats.....	do ...	do .....	2 do ...	1 50	3 00
Carpenter .....	do ...	Hermon Plumsted.....	25½ do ...	1 50	38 63
do .....	do ...	George Fisher.....	25 do ...	1 00	25 00
Team hauling .....	do ...	Chas. Hill.....	23½ do ...	3 00	70 50
do .....	do ...	Jas. Hamilton.....	2 do ...	3 00	6 00
					438 10



**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of September, 1869, to Laborers on Repairs, Banks, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer on scow.....	Sept., 1869	J. C. McMahon.....	26 days...	1 00	26 00
do .....	do	Jas. Gunning.....	29 do ...	1 00	29 00
do .....	do	John Fisher.....	29 do ...	1 00	29 00
do .....	do	Wm. Lauchlan.....	27 do ...	1 00	27 00
do .....	do	Enc. Manlay.....	22 do ...	1 00	22 00
do .....	do	Jas. Clark.....	28 do ...	1 00	28 00
do .....	do	Patrick Gardner.....	28 do ...	1 00	28 00
do .....	do	Michael Caffrey.....	28 do ...	1 00	28 00
do .....	do	James Murphy.....	18½ do ...	1 00	18 50
do .....	do	John Davis.....	24 do ...	1 00	24 00
do .....	do	John Collins.....	26 do ...	1 00	26 00
do .....	do	Daniel Meagher.....	22 do ...	1 00	22 00
do .....	do	Fred. Sherran.....	11 do ...	1 00	11 00
do .....	do	John Sullivan.....	2½ do ...	1 00	2 50
do .....	do	John Naster.....	1 night...	1 00	1 00
Horse towing scow.....	do	J. C. McMahon.....	16 days...	1 00	16 00
Laborer.....	do	John Burns.....	9½ do ...	1 00	9 50
do .....	do	Isrl. Labey.....	14½ do ...	1 00	14 75
do .....	do	Isrl. Dalaney.....	14½ do ...	1 00	14 75
do .....	do	Thos. Boyle.....	9½ do ...	1 00	9 50
do .....	do	Alex. Flammery.....	8½ do ...	1 00	8 25
do .....	do	John Delaney.....	16½ do ...	1 00	16 25
do .....	do	Richard Boyle.....	5½ do ...	1 00	5 50
do .....	do	Michael Maloy.....	25 do ...	1 00	25 00
do .....	do	Thos. Bradley.....	18½ do ...	1 00	18 50
Diving, Lock No. 2, \$5; Lock No. 3, \$10; Lock No. 3, \$2; Lock No. 10, \$2.....	do	Wm. Cunningham.....	19 do ...	1 00	19 00
Hay required.....	do	Enc. Grant.....	.....	1 00	24 00
Laborer.....	do	Chas. Hill.....	4½ hours...	8 00	34 00
do .....	do	Wm. Cavers.....	2 days...	1 00	2 00
do .....	do	John Strang.....	1½ do ...	1 00	1 50
do .....	do	James Philip.....	1 do ...	1 00	1 00
do .....	do	Wm. Williams.....	2 do ...	1 00	2 00
do .....	do	Samuel Booth.....	1 do ...	1 00	1 00
do .....	do	James McCabe.....	2½ do ...	1 00	2 50
do .....	do	James Coughlan.....	½ do ...	1 00	0 50
do .....	do	Thos. Flynn.....	½ do ...	1 00	0 50
do .....	do	Andrew Taggart.....	2 do ...	1 00	2 00
do .....	do	Thos. Turner.....	1 do ...	1 00	1 00
do .....	do	Wm. Fezan.....	½ do ...	1 00	0 50
do .....	do	Jno. McNamara.....	1 do ...	1 00	1 00
do .....	do	Wm. Burlay.....	1 do ...	1 00	1 00
do .....	do	Robt. Bradley.....	1½ do ...	1 00	1 50
do .....	do	Frank Weaver.....	2½ do ...	1 00	2 50
do .....	do	Stephen Nama.....	1 do ...	1 00	1 00
do .....	do	Bart. Clark.....	½ do ...	1 00	0 50
do .....	do	Robt. Gibson.....	3 do ...	1 00	3 00
do .....	do	Jas. McAuley.....	½ do ...	1 00	0 50
do .....	do	Wm. Cochran.....	1 do ...	1 00	1 00
do .....	do	Wm. Chace.....	4 do ...	1 00	4 00
do .....	do	Wm. Assill.....	26 do ...	1 00	26 00
Carpenter.....	do	Jos. Palmer.....	1 do ...	1 25	1 25
Team hauling.....	do	George May.....	6½ do ...	3 00	19 50
					614 25

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of September, 1869, to Laborers on Repairs, Banks, &c., from Thorold to Colborne, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman on scow.....	Sept., 1869	Patrick Kelly.....	26 days...	1 25	32 50
Laborer.....	do	John Corbett.....	26 do ...	1 00	26 00
do .....	do	Ben. Redfern.....	26 do ...	1 00	26 00
do .....	do	Michael McAuliff.....	25 do ...	1 00	25 00
do .....	do	Wm. Kelly.....	26 do ...	1 00	26 00
do .....	do	Thos. Dornington.....	26 do ...	1 00	26 00
do .....	do	John Foster.....	15½ do ...	1 00	15 00
do .....	do	James Clancay.....	15½ do ...	1 00	15 75
do .....	do	Timothy Sullivan.....	24½ do ...	1 00	24 50
do .....	do	Peter Collins.....	25 do ...	1 00	25 00
do .....	do	Brian Flin.....	23½ do ...	1 00	23 25
do .....	do	Alex. Hannah.....	24 do ...	1 00	24 00
do .....	do	Michael Sullivan.....	22½ do ...	1 00	22 50
do .....	do	Patrick Dalton.....	23½ do ...	1 00	23 25
do .....	do	Patrick Murphy.....	21½ do ...	1 00	21 50
do .....	do	Wm. Broom.....	8½ do ...	1 00	8 50
do .....	do	James Numan.....	24½ do ...	1 00	24 25
do .....	do	James Herdman.....	22½ do ...	1 00	22 75
do .....	do	Tim Kinney.....	22½ do ...	1 00	22 75
do .....	do	Alex. Shields.....	20 do ...	1 00	20 00
Team hauling.....	do	Daniel Kelly.....	21 do ...	2 50	52 50
do .....	do	William Hannah.....	6 do ...	2 50	15 00
Carpenter.....	do	Peter Winterwood.....	25 do ...	1 25	31 25
Laborer.....	do	John Haviston.....	25 do ...	1 00	25 00
do .....	do	John Hoise.....	15½ do ...	1 00	15 50
					594 25

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 4, during the month of September, 1869, to Laborers on Repairs, Banks, &c., at Dunnville, chargeable to Ordinary Repairs.

Capacity	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter.....	Sept, 1869	John Patterson.....	17 days...	2 00	34 00
Laborer.....	do	Wm. Simkson.....	8 do ...	1 00	8 00
do .....	do	John Hughes.....	2 do ...	1 00	2 00
do omitted.....	Aug., 1869	James Trush.....	20½ do ...	1 00	20 50
do .....	Sept., 1869	James Trush.....	8 do ...	1 00	8 00
do .....	do	Horatio Jemmings.....	8 do ...	1 00	8 00
do .....	do	James Wilson.....	3 do ...	1 00	3 00
do omitted.....	Aug., 1869	Martin Feta.....	24½ do ...	0 62½	15 31
					78 81

## ACCOUNTS chargeable to Repairs, Welland Canal.

Date.	Nature of Work.	\$ cts.	\$ cts.
1869. Sept.....	Daniel Glass— 44½ days painting, at \$1 50.....	66 38	
	5 do cleaning, at \$1.....	5 00	
	Making curtains and furnishing cloth.....	1 23	
	3½ days carpenter, at \$1.75.....	6 13	
	15 lights, 8 by 10 inch sash, at 4 cts.....	0 60	
	210 ft. dressed lumber, at 2½ cts.....	5 25	
	Nails, 60 cts. ; shingle, 25 cts.....	0 85	
			85 44
	George Clutterbuck— 24 hours plastering canal office, at 25 cts.....	6 00	
	10 days at ceilings, at \$2.....	20 00	
	Whitening and stucco.....	3 00	
			29 00
	Walter Wear, 618 meals furnished men, at 25 cts.....		154 50
	W. Kelly— 414 meals furnished men, at 25 cts.....	103 50	
	39 beds do at 20 cts.....	7 80	
			111 30
	Phillip Fahtbach, Stone Bridge, repairs, iron, stone bridge.....		5 00
	John Hammond, Haldimand, 9 loads stone delivered at Haldimand Bridge, at \$3.50.....		31 50
	Thos. Drake, Haldimand— 4 handles for stone hammers, at 25 cts.....	1 00	
	Repairs, 9 stone hammers. at 75 cts.....	6 75	
	do 5 picks, at 15 cts.....	0 75	
			8 50
			425 24

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 1, during the month of October, 1869, to Carpenters on Repairs, Lock Gates, Bridges, &c., from Dalhousie, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate per day.	Amount
				\$ cts.	\$ cts.
Carpenters.....	Oct., 1869	Edward Grant.....	{ 3½ nights 26 days.. }	2 00	59 00
do .....	do	James Dell.....	{ 1 night.. 26 days.. }	1 75	47 25
do .....	do	John Henning.....	{ 24 do .. 1 night.. }	1 75	42 00
do .....	do	James Jarvis.....	{ 25½ days.. 25½ do .. }	1 50	39 75
do .....	do	Harmond Plumsted.....	{ 26 do .. 1 night.. }	1 50	38 62
do .....	do	Wm. Smith.....	{ 26 do .. 25 days.. }	1 50	39 00
do .....	do	Alex. Walker.....	{ 1 night.. 25 days.. }	1 50	39 00
do .....	do	Wm. Fenallard.....	{ 22 do .. 25 days.. }	1 12½	24 75
do .....	do	James Collier.....	{ 25 days.. 1 night.. }	1 00	25 00
do .....	do	George Fisher.....	{ 26 days.. 1 night.. }	1 00	27 00
Team hauling.....	do	Chas. Hill.....	{ 25½ days.. 5 do .. }	3 00	79 50
do .....	do	C. W. Hill.....	{ 5 do .. }	3 00	15 00
					475 87



PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of October, 1869, to Laborers on Repairs, Banks, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	Oct., 1869	John Burns .....	20 $\frac{3}{4}$ days...	1 00	20 75
do .....	do	Jerry Lehey .....	19 $\frac{3}{4}$ do ...	1 00	19 75
do .....	do	Thos. Boyle .....	19 $\frac{3}{4}$ do ...	1 00	19 50
do .....	do	Jerry Delany .....	5 $\frac{1}{4}$ do ...	1 00	5 25
do .....	do	John Davis .....	7 $\frac{1}{2}$ do ...	1 00	7 50
do .....	do	Daniel Meagher .....	25 $\frac{1}{2}$ do ...	1 00	25 50
do .....	do	John Delany .....	25 $\frac{1}{2}$ do ...	1 00	25 50
do .....	do	John Collins .....	25 $\frac{1}{2}$ do ...	1 00	25 50
do .....	do	Wm. Willson .....	5 $\frac{1}{4}$ do ...	1 00	5 50
do .....	do	End. Arkinson .....	15 $\frac{1}{2}$ do ...	1 00	15 50
do .....	do	Thos. Ash .....	10 $\frac{1}{4}$ do ...	1 00	10 50
do .....	do	Thos. Bradley .....	24 $\frac{3}{4}$ do ...	1 00	24 75
do .....	do	Michael Maloy .....	25 $\frac{1}{2}$ do ...	1 00	25 50
do .....	do	I. McMahon .....	26 do ...	1 00	26 00
do .....	do	James Gunning .....	24 $\frac{3}{4}$ do ...	1 00	24 50
do .....	do	John Fisher .....	24 $\frac{1}{2}$ do ...	1 00	24 50
do .....	do	Wm. Laughlan .....	23 do ...	1 00	23 00
do .....	do	End. Manly .....	25 do ...	1 00	25 00
do .....	do	James Clark .....	22 $\frac{1}{2}$ do ...	1 00	22 50
do .....	do	Patrick Garner .....	25 do ...	1 00	25 00
do .....	do	Micheal Caffrey .....	25 do ...	1 00	25 00
Horse towing scow .....	do	I. McMahon .....	17 $\frac{1}{4}$ do ...	1 00	17 50
Laborer .....	do	Micheal Joice .....	2 $\frac{1}{2}$ do ...	1 00	2 50
Carpenter .....	do	John Patterson .....	10 do ...	1 50	15 00
Laborer .....	do	Wm. Assell .....	26 do ...	1 00	26 00
					487 50

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of October, 1869, to Laborers on Repairs, Banks, &c., from Thorold to Colborne, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate per day.	Amount.
				\$ cts.	\$ cts.
Laborer on repairs .....	Oct., 1869.	Jos. Newman .....	22 days...	1 00	22 00
do .....	do	Tim Kennedy .....	21 $\frac{1}{2}$ do ...	1 00	21 25
do .....	do	James Herdman .....	20 $\frac{1}{2}$ do ...	1 00	20 25
do .....	do	Peter Seburn .....	9 do ...	1 00	9 00
Foreman, &c. ....	do	Patrick Kelly .....	26 do ...	1 25	32 50
Laborer .....	do	Bea. Redferrin .....	16 $\frac{3}{4}$ do ...	1 00	16 75
do .....	do	Michael McAuliffe .....	22 $\frac{3}{4}$ do ...	1 00	22 75
do .....	do	Thos. Dorrington .....	16 $\frac{1}{2}$ do ...	1 00	16 25
do .....	do	Wm. Kelly .....	25 $\frac{1}{2}$ do ...	1 00	25 50
do .....	do	John Foster .....	16 $\frac{1}{2}$ do ...	1 00	16 25
do .....	do	Tim Sullivan .....	22 do ...	1 00	22 25
do .....	do	Peter Collins .....	23 do ...	1 00	23 00
do .....	do	Bryson Flynn .....	21 do ...	1 00	21 00
do .....	do	Alex. Hannah .....	19 do ...	1 00	19 00
do .....	do	Michael Sullivan .....	20 $\frac{1}{2}$ do ...	1 00	20 25
do .....	do	Patrick Dalton .....	19 do ...	1 00	19 00
Laborer on bank, &c. ....	do	John McAuliffe .....	17 $\frac{3}{4}$ do ...	1 00	17 75
do .....	do	Patrick Murphy .....	22 $\frac{1}{2}$ do ...	1 00	22 50
do .....	do	Edward Foster .....	18 $\frac{1}{2}$ do ...	1 00	18 25
do .....	do	James Clancey .....	15 do ...	1 00	15 75
do .....	do	James Coin .....	9 $\frac{1}{2}$ do ...	1 00	9 25
do .....	do	John Corbett .....	26 do ...	1 00	26 00
Team hauling .....	do	Daniel Kelly .....	20 do ...	2 25	50 00
Repairing bridges, &c. ....	do	Peter Wintermoot .....	26 do ...	1 25	32 50
Laborer .....	do	John Harriston .....	26 do ...	1 00	26 00
do .....	do	John Hoire .....	9 do ...	1 00	9 00
Diving in Lock at Port Colborne .....	do	Jos. Shickluna .....	5 dives...	1 00	5 00
					559 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 2, Division No. 1, during the month of November, 1869, to Carpenters on Repairs, Lock Gates and Bridges, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	Nov., 1869.	Edwd. Grant.....	26 days...	2 00	52 00
do .....	do	James Dell.....	26 do ...	1 75	45 50
do .....	do	John Henning.....	26 do ...	1 75	45 50
do .....	do	Wm. Flewallen.....	26 do ...	1 12½	29 25
do .....	do	Jas. Ferris.....	25 do ...	1 50	37 50
do .....	do	Harmon Plumsted.....	25 do ...	1 50	37 50
do .....	do	Alex. Walker.....	25 do ...	1 50	37 50
do .....	do	Wm. Smith.....	26 do ...	1 50	39 00
do .....	do	Jas. Collier.....	26 do ...	1 00	26 00
do .....	do	George Fisher.....	26 do ...	1 00	26 00
do .....	do	Syrus Rose.....	19 do ...	1 25	23 75
do .....	do	Peter Coon.....	1½ do ...	1 25	1 87
Laborer .....	do	Felicia Goodman.....	6 do ...	1 00	6 00
Team hauling.....	do	Chas. Hill.....	18½ do ...	3 00	55 50
					462 87

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of November, 1869, to Carpenters on Repairs, Banks, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	Nov., 1869	I. McMann.....	26 do ...	1 00	26 00
do .....	do	Jas. Gunning.....	25½ do ...	1 00	25 50
do .....	do	John Fisher.....	25 do ...	1 00	25 00
do .....	do	Wm. Laughlin.....	25½ do ...	1 00	25 25
do .....	do	Edwd. Manly.....	24 do ...	1 00	24 00
do .....	do	James Clark.....	25½ do ...	1 00	25 25
do .....	do	Patk. Garner.....	25 do ...	1 00	25 00
do .....	do	Michael Caffrey.....	25½ do ...	1 00	25 50
do .....	do	Michael Joyce.....	25½ do ...	1 00	25 50
Horse, towing scow.....	do	I. McMann.....	18 do ...	1 00	18 00
Overseer on scow, July, August, September, October and November.....	do	Ben. McMahon.....	5 months.	15 00	75 00
Laborer.....	do	John Burns.....	15 days...	1 00	15 00
do .....	do	Jerry Lahey.....	16 do ...	1 00	16 00
do .....	do	Thomas Boyle.....	15½ do ...	1 00	15 50
do .....	do	John Delaney.....	17 do ...	1 00	17 00
do .....	do	Edwd. Arkinson.....	16½ do ...	1 00	16 50
do .....	do	John Collins.....	25 do ...	1 00	25 00
do .....	do	Thos. Bradley.....	15½ do ...	1 00	15 50
do .....	do	Thos. Ash.....	5 do ...	1 00	5 00
do .....	do	Dan. Meaghan.....	18½ do ...	1 00	18 50
do .....	do	Michael Finney.....	4 do ...	1 00	4 00
do .....	do	Michael Maloy.....	26 do ...	1 00	26 00
do .....	do	Wm. Assell.....	26 do ...	1 00	26 00
Making measurements, maps, &c.....	do	Edwd. Gardiner.....	1 do ...	3 00	3 00
Painting bridge, Thorold, Keefer's.....	do	Dan. Glass.....	20 do ...	1 50	30 00
Carpenter .....	do	John Patterson.....	27 do ...	1 72	40 50
					593 50



**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of November, 1869, to Laborers on Repairs, Banks, &c., from Thorold to Colborne, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	Nov., 1869	Jos. Numan.....	23 days...	1 00	23 00
do .....	do	Tim Kenney .....	8 $\frac{3}{4}$ do ...	1 00	8 75
do .....	do	John Seburn .....	7 $\frac{1}{4}$ do ...	1 00	7 75
do .....	do	Patrick Kelley.....	24 do ...	1 25	30 00
do .....	do	John Corbett.....	26 do ...	1 00	26 00
do .....	do	John Foster.....	19 do ...	1 00	19 00
do .....	do	Benjamin Redfern.....	24 $\frac{1}{2}$ do ...	1 00	24 50
do .....	do	Michael McAuliff.....	22 $\frac{1}{2}$ do ...	1 00	22 50
do .....	do	Thomas Dorrington.....	25 $\frac{1}{2}$ do ...	1 00	25 50
do .....	do	William Kelly.....	18 do ...	1 00	18 00
do .....	do	Peter Collins.....	20 $\frac{1}{2}$ do ...	1 00	20 50
do .....	do	Bryne Flynn.....	19 $\frac{1}{2}$ do ...	1 00	19 25
do .....	do	Alex. Hannah.....	15 do ...	1 00	15 00
do .....	do	Michael Sullivan.....	17 do ...	1 00	17 00
do .....	do	Patrick Dalton.....	15 $\frac{3}{4}$ do ...	1 00	15 75
do .....	do	Patrick Murphy.....	19 do ...	1 00	19 00
do .....	do	John McAuliff.....	2 $\frac{1}{2}$ do ...	1 00	2 25
do .....	do	Edward Foster.....	16 $\frac{1}{2}$ do ...	1 00	16 75
do .....	do	James Clancey.....	18 $\frac{1}{2}$ do ...	1 00	18 50
do .....	do	James Coin.....	19 do ...	1 00	19 00
do .....	do	Alex. Shields.....	23 do ...	1 00	23 00
Team hauling.....	do	Daniel Kelly.....	18 do ...	2 72	45 00
do .....	do	Wm. Hannah.....	3 do ...	2 72	7 50
Repairs, pier, Colborne.....	do	Peter Wintermoot.....	25 $\frac{1}{2}$ do ...	1 25	31 87
Laborer .....	do	John Harviston.....	25 $\frac{1}{2}$ do ...	1 00	25 50
Horse towing scow.....	do	Samuel Cooke.....	1 do ...	1 50	1 50
					502 37

### ACCOUNTS Chargeable to Welland Canal, Repairs for November, 1869.

Date.	Nature of Work.	\$ cts.	\$ cts.
1869.	ALEX. MUIR.		
Oct. 19	To 2 pieces oak timber, 90 c. ft., at 20c.....	18 00	
do 19	1 days' carpenter work, at \$1.75.....	3 06	
do 19	do man and horse.....	2 25	
do 19	do pile driver.....	3 75	
	TUES "BENNETT" AND "SECORD."		27 06
Nov. 23, 24	To 2 days' work on feeder breaking ice.....		25 00
	ROBERT HENRY.		
Nov. 23, 24	To Repairs rag bolts, 151 lbs., at 1 $\frac{1}{2}$ c.....	2 26	
do ...	Rag bolts, 64 lbs., 4 $\frac{1}{2}$ c.....	2 88	
do ...	Screw bolts, 66 lbs., at 7c.....	4 62	
do ...	Setting tire on wheelbarrow.....	0 25	
do ...	Laying picks, 63c.; 24 nails, 48c.....	1 91	
	WILLIAM RUNCHEY.		11 12
Nov. 23, 24	To 216 meals furnished men making repairs, Port Dalhousie, at 20c.....		43 20
			106 38

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 2, Div. No. 1, during the month of December, 1869, to Carpenters on Repairs, Lock Gates, Bridges, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed.	Name.	Time.	Rate.	Amount.
	1869.			\$ cts.	\$ cts.
Carpenter .....	December.	Edward Grant.....	15 days...	at 2 00	30 00
do .....	do	James Dell.....	15 do ...	1 75	26 25
do .....	do	John Henning .....	14 do ...	1 75	24 50
do .....	do	Wm. Flewallan.....	15 do ...	1 12 $\frac{1}{2}$	16 87
do .....	do	James Ferris.....	15 do ...	1 50	22 50
do .....	do	Harmon Plumsted.....	13 $\frac{1}{2}$ do ...	1 50	20 25
do .....	do	Alex. Walker.....	13 $\frac{3}{4}$ do ...	1 50	20 63
do .....	do	Wm. Smith.....	15 do ...	1 50	22 50
do .....	do	James Collier.....	15 do ...	1 00	15 00
do .....	do	George Fisher.....	15 do ...	1 00	15 00
Team hauling.....	do	Charles Hill.....	13 do ...	3 00	39 00
					252 50

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of December, 1869, to Laborers on Banks, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer on banks.....	Dec., 1869.	Mich'l Maloy .....	7 days....	1 00	7 00
do .....	do	John Collins .....	5 do .....	1 00	5 00
do .....	do	Wm. Assell .....	27 do .....	1 00	27 00
Tracing maps, &c.....	do	Ed. Gardiner.....	2 do .....	3 00	6 00
Laborer .....	do	Wm. Ahern .....	8 do .....	1 00	8 00
					53 00

PAY-LIST in duplicate of Persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of December, 1869, to Laborers on Repairs, Banks, &c., from Thorold to Colborne, chargeable to Ordinary Repairs.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer on repairs, banks, &c.	Dec., 1869.	Jas. Numan .....	12 days.....	1 00	12 00
do do	do	Peter Seburn.....	4½ do .....	1 00	4 50
do do	do	Pat'k Kelly .....	16 do .....	1 25	20 00
do do	do	John Corbett .....	13 do .....	1 00	13 00
do do	do	Ben. Redfern .....	9 do .....	1 00	9 00
do do	do	Mich'l McAuliffe.....	7½ do .....	1 00	7 50
do do	do	Thos. Dorrington .....	9 do .....	1 00	9 00
do do	do	Wm. Kelly .....	3 do .....	1 00	3 00
do do	do	Con. Lynch .....	1 do .....	1 00	1 00
do do	do	Robert Grisdale .....	1 do .....	1 00	1 00
do do	do	Angus McIntosh.....	1 do .....	1 00	1 00
do do	do	Jas. McCoppen.....	2 do .....	1 00	2 00
do do	do	Alex'r Shields .....	9 do .....	1 00	9 00
Team breaking ice.....	do	Oscar Upper .....	4½ do .....	2 50	11 25
do do	do	Willis Upper .....	4½ do .....	2 50	11 25
do do	do	Albert Upper .....	1½ do .....	2 50	3 75
do do	do	Jas. Upper, sen.....	1½ do .....	2 50	3 75
do do	do	Jacob Upper .....	1½ do .....	2 50	3 75
Team hauling .....	do	Dan'l Kelly .....	16 do .....	2 50	40 00
Making wheelbarrow .....	do	John Bruce .....	13 do .....	1 25	16 25
Laborer .....	do	James Waters .....	3 do .....	1 00	13 00
do	do	Wm. Higgins.....	13 do .....	1 00	13 00
Team breaking ice.....	do	James Upper .....	3 do .....	2 50	7 50
Repairs to piers, Pt. Colborne	do	Peter Wintermoot .....	9 do .....	1 25	11 25
do do	do	John Harriston.....	9 do .....	1 00	9 00
Team hauling dirt from back of pier.....	do	David Ramey.....	3 do .....	3 00	9 00
					244 75

### ACCOUNTS Chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	\$ cts.	\$ cts.
1868.	W. H. JONES.		
May 27...	To Repairing hand lamp.....	0 05	
July 7...	Large lamp .....	0 05	
Aug. 18...	Spring on stone bridge lamp.....	0 10	
Sept. 11...	Repairing two lamp burners.....	0 20	
do 17...	do red lamp.....	0 10	
1869.			
April 22...	To Repairing lamp and oil can .....	0 10	
May 2...	Large lamp.....	0 05	
Aug. 16...	do .....	0 10	
Oct. 8...	Stone bridge lamp .....	0 18	
Dec. 2...	New globe and repairing stone bridge lamp.....	1 00	
1869.	JOSEPH UPPER.		1 93
Dec. 7...	To 33 meals, at 25c. per meal.....	8 25	
	4 bushels oats, at 50c. per bushel.....	2 00	
			10 25
			12 18



**PAY-LIST**, in duplicate, of persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of January, 1870, to Laborers, from Dalhousie to Thorold, &c., chargeable to Ordinary Repairs.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	Jan., 1870	Wm. Assell.....	26 days...	1 00	26 00
Overseer, Dunnville embankment.....	do ...	John Patterson.....	26 do ...	1 50	39 00
					65 00

**PAY-LIST**, in duplicate, of persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of January, 1870, to Laborers, on Repairs, Banks, Ditches, &c., from Thorold to Colborne, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	Jan., 1870	Jas. Numan .....	6 days...	1 00	6 00
do .....	do ...	Patrick Kelly.....	14½ do ...	1 25	17 81
do .....	do ...	John Corbett.....	11½ do ...	1 00	11 25
do .....	do ...	Benj. Redferrin.....	1½ do ...	1 00	1 75
do .....	do ...	Michael McAuliffe.....	7 do ...	1 00	7 00
do .....	do ...	Thos. Dorrington.....	5½ do ...	1 00	5 75
Making wheelbarrow.....	do ...	John Bruce.....	26 do ...	1 25	32 50
Team hauling .....	do ...	Jos. Fegan.....	5 do ...	2 50	12 50
do .....	do ...	Daniel Kelly.....	19 do ...	2 50	47 50
					142 06

## ACCOUNTS chargeable to Welland Canal, January, 1870, Repairs.

Date.	Nature of Work.	\$ cts.	\$ cts.
1869.	Isaac Pew—		
Aug. 21...	4 bolts, 2 links, 1 clevis, 1 shackle, repairing shovel.....	4 00	
do 18...	Hooping tub and sharpening 2 picks.....	0 75	
do 21...	Repairing scraper.....	0 50	
Sept. 20...	Facing 2 stone hammers, 1 pick.....	1 77	
do 27...	Steel pointing 5 picks and repairing crowbar.....	2 00	
do 27...	1 band, repairing pick and pump stand.....	0 75	
do 27...	Repairing rake and grappling iron.....	0 50	
Oct. 23...	2 links.....	0 50	
Nov. 24...	2 links.....	0 25	
			11 00
	M. A. Smith—		
April 23...	820 ft. plank and boards for break at end of toll bridge.....	9 84	
May 3...	416 ft. plank, at \$12.....	4 99	
July 10...	200 ft. plank, at \$12 (by Patterson).....	2 40	
			17 23
	Alex. Muir & Bros.—		
Sept. 21...	6½ lbs. ratline, at 17 cts.....	1 10	
do 22...	15½ lbs. manilla, small, at 19 cts.....	2 94	
do 27...	1 lb. spun yarn, at 17 cts.....	0 17	
			4 21
	John Brown—		
April 1...	2 bushels cement, at 25 cts., and 3 barrels, at \$1.50.....	5 00	
do 6...	3 barrels cement, at \$1.50.....	4 50	
do 8...	4 do do at \$1.50.....	6 00	
do 12...	28 bushels do at 25 cts.....	7 00	
do 14...	9 do do at 25 cts.....	2 25	
do 15...	10 do do at 25 cts.....	2 50	
do 17...	4 do do at 25 cts.....	1 00	
			28 25
			60 69

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 1, during the month of March, 1870, to Carpenters on Repairs, Lock Gates, Bridges, &c., chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter.....	Mar., 1870	Harmon Plumsted.....	6 days...	1 50	9 00
do .....	do	John Henning.....	6 do ..	1 75	10 50
Team hauling.....	do	Chas. Hill.....	20 do ..	3 00	60 00
do .....	do	Orin Gordis.....	2 do ..	3 00	6 00
Carpenter.....	do	Wm. Walker.....	8 do ..	1 50	12 00
Laborer.....	do	Jonathan Woodall.....	10½ do ..	0 87½	9 19
					106 69

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of March, 1870, to Laborers on Repairs, Banks, &c., chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	Mar., 1870.	John Weaver.....	4 nights, 9 $\frac{3}{4}$ days.....	0 87 $\frac{1}{2}$	12 03
do .....	do	John Gunning.....	11 days.....	0 87 $\frac{1}{2}$	9 63
do .....	do	Michael Joyce.....	11 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	10 06
do .....	do	John Bratty.....	9 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	8 53
do .....	do	John Collins.....	16 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	14 00
do .....	do	John Morgan.....	7 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	6 34
do .....	do	Jas. Kaller.....	6 do .....	0 87 $\frac{1}{2}$	5 25
do .....	do	Edward Manly.....	10 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	9 19
do .....	do	Dan. Meagher.....	9 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	8 09
do .....	do	Jas. Hair.....	8 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	7 66
do .....	do	Bernard Brennan.....	7 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	6 78
do .....	do	Thos. Carson.....	9 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	8 31
do .....	do	Wm. Reardon.....	6 do .....	0 87 $\frac{1}{2}$	5 25
do .....	do	Patrick Garner.....	7 do .....	0 87 $\frac{1}{2}$	6 13
do .....	do	Wm. Fahey.....	8 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	7 22
do .....	do	John Sheehan.....	9 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	8 09
do .....	do	John Hanniberry.....	7 $\frac{1}{2}$ do .....	0 87 $\frac{1}{2}$	6 78
do .....	do	Michael Maloy.....	13 do .....	0 87 $\frac{1}{2}$	11 38
do .....	do	Wm. O'Neill.....	8 do .....	0 87 $\frac{1}{2}$	7 00
do .....	do	Michael McCarthy.....	7 do .....	0 87 $\frac{1}{2}$	6 13
do .....	do	Wm Kaylor.....	5 do .....	0 87 $\frac{1}{2}$	4 38
do .....	do	Edward Coyle.....	14 do .....	0 87 $\frac{1}{2}$	12 25
do .....	do	Patrick Benton.....	17 do .....	0 87 $\frac{1}{2}$	14 87
Mason.....	do	Gabriel Pocock.....	7 $\frac{3}{4}$ do .....	2 00	15 50
do .....	do	John Pocock.....	7 $\frac{3}{4}$ do .....	2 00	15 50
do .....	do	Thos. Pocock.....	7 $\frac{3}{4}$ do .....	2 00	15 50
do .....	do	Wm. Pocock.....	7 $\frac{3}{4}$ do .....	2 00	15 00
do .....	do	Dennis Crowley.....	14 $\frac{3}{4}$ do .....	1 00	14 75
Laborer .....	do	Wm. Assell.....	27 do .....	1 00	27 00
					298 60



**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of March, 1870, to Laborers on Repairs, Banks, &c., from Thorold to Colborne, chargeable to Ordinary Repairs.

Capacity.	When Employed.	Names.	Time.	Rate per day.	Amount.
				\$ cts.	\$ cts.
Making wheelbarrows.....	Mar., 1870	John Bruce .....	26 days...	1 25	32 50
Foreman .....	do	Patrick Kelley.....	9½ do ..	1 25	11 88
Laborer .....	do	John Corbett.....	5 do ..	0 87½	4 38
do .....	do	Benj. Redfern.....	2 do ..	0 87½	1 75
do .....	do	Michael McAuliffe.....	2 do ..	0 87½	1 75
do .....	do	Jos. Numan.....	6 do ..	0 87½	5 25
Team hauling.....	do	Daniel Kelley.....	10½ do ..	2 50	26 25
					83 70

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 1, during the month of April, 1870, to Carpenters on Repairs, Lock Gates, Bridges, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	April, 1870	Edward Grant.....	{ 2 nights. }	2 00	66 00
			{ 31 days.. }		
do .....	do	James Dell.....	{ 1 night.. }	1 75	54 25
			{ 30 days.. }		
do .....	do	John Henning.....	26 do ..	1 75	45 50
do .....	do	Wm. Fluellan.....	17 do ..	1 12½	19 13
do .....	do	Jas. Farries.....	30 do ..	1 50	45 00
do .....	do	Jas. Collier.....	26 do ..	1 00	26 00
do .....	do	George Fisher.....	17 do ..	1 00	17 00
do .....	do	Wm. Fisher.....	10 do ..	1 00	10 00
do boy.....	do	George Grant.....	11 do ..	50	5 50
do .....	do	Abram Brennan.....	21½ do ..	1 00	21 50
Team hauling.....	do	Chas. Hill.....	24¼ do ..	3 00	72 75
					382 63

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of April, 1879, 10 Masons, Laborers on Banks, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Mason.....	April, 1870	Gabriel Pocock.....	14 $\frac{1}{2}$ days...	2 00	29 00
do .....	do	John Pocock.....	13 $\frac{1}{2}$ do ...	2 00	27 00
do .....	do	Thomas Pocock.....	13 do ...	2 00	26 00
do .....	do	William Pocock.....	13 do ...	2 00	26 00
do .....	do	Daniel Crowley.....	13 $\frac{1}{2}$ do ...	1 00	13 50
do .....	do	Arthur Boyle.....	17 $\frac{1}{2}$ do ...	2 00	35 00
do .....	do	George Boyle.....	12 $\frac{1}{2}$ do ...	2 00	25 00
do .....	do	Wm. Walsh.....	7 $\frac{1}{2}$ do ...	2 00	15 00
Omitted in .....	March, '70	James Delaney.....	7 do ...	1 00	7 00
do .....	do	Robert Gibson.....	3 do ...	1 00	3 00
do .....	do	Bart Clark.....	5 do ...	1 00	5 00
do .....	do	Tom Flynn.....	3 do ...	1 00	3 00
do .....	do	Martin Nestor.....	2 do ...	1 00	2 00
do .....	do	James Bradley.....	3 do ...	1 00	3 00
do .....	do	Wm. Wilson.....	2 do ...	1 00	2 00
Laborer.....	April, 1870	Chas. Kelly.....	14 do ...	1 00	14 00
do .....	do	John Collins.....	13 $\frac{1}{2}$ do ...	1 00	13 50
do .....	do	Wm. Clark.....	14 do ...	1 00	14 00
do .....	do	Duncan McPhee.....	13 $\frac{1}{2}$ do ...	1 00	13 50
do .....	do	Thomas Boothe.....	13 $\frac{1}{2}$ do ...	1 00	13 50
do .....	do	Wm. Keer.....	10 do ...	1 00	10 00
do .....	do	Samuel Fisher.....	10 $\frac{1}{2}$ do ...	1 00	10 50
do .....	do	John Neill.....	11 $\frac{1}{2}$ do ...	1 00	11 50
do .....	do	James Robinson.....	10 do ...	1 00	10 00
do .....	do	Patrick Steepe.....	10 $\frac{1}{2}$ do ...	1 00	10 50
do .....	do	John Dundas.....	10 $\frac{1}{2}$ do ...	1 00	10 50
do .....	do	Robert Camp.....	6 $\frac{1}{2}$ do ...	1 00	6 50
do .....	do	Peter Holida.....	10 do ...	1 00	10 00
do .....	do	John Gearon.....	10 do ...	1 00	10 00
do .....	do	Thos. Sir Smith.....	9 do ...	1 00	9 00
do .....	do	Edward Artlinson.....	10 do ...	1 00	10 00
do .....	do	Daniel Leary.....	8 do ...	1 00	8 00
Team hauling.....	do	Joseph Docherty.....	2 $\frac{1}{2}$ do ...	3 00	7 50
Laborer.....	do	Michael Muloy (wife).....	26 do ...	1 00	26 00
do .....	do	John Collins.....	26 do ...	1 00	26 00
do .....	do	Wm. Caylor.....	1 do ...	1 00	1 00
do .....	do	Darius Corney.....	1 do ...	1 00	1 00
do .....	do	Wm. O'Neill.....	1 do ...	1 00	1 00
do .....	do	Isaac McMahon.....	26 do ...	1 00	26 00
do .....	do	Jas. Guinning.....	25 $\frac{1}{2}$ do ...	1 00	25 50
do .....	do	Wm. Laughlin.....	12 $\frac{1}{2}$ do ...	1 00	12 50
do .....	do	Patrick Garner.....	24 $\frac{1}{2}$ do ...	1 00	24 50
do .....	do	Edward Manly.....	24 $\frac{1}{2}$ do ...	1 00	24 75
do .....	do	John Fisher.....	24 $\frac{1}{2}$ do ...	1 00	24 50
do .....	do	Edward Bradley.....	13 $\frac{1}{2}$ do ...	1 00	13 50
do .....	do	Michael Caffray.....	23 $\frac{1}{2}$ do ...	1 00	23 50
do .....	do	Thos. Armstrong.....	4 do ...	1 00	4 00
do .....	do	John Delaney.....	25 do ...	1 00	25 00
do .....	do	Jerry Lauchey.....	19 $\frac{1}{2}$ do ...	1 00	19 50
do .....	do	Michael Joice.....	23 $\frac{1}{2}$ do ...	1 00	23 50
do .....	do	Walter Strong.....	11 do ...	1 00	11 00
do .....	do	James Dale.....	11 $\frac{1}{2}$ do ...	1 00	11 50
do .....	do	Peter Doyle.....	19 do ...	1 00	19 00
do .....	do	Abraham Bradley.....	8 do ...	1 00	8 00
do .....	do	Peter Flaherty.....	6 do ...	1 00	6 00
do .....	do	Thos. Feenery.....	3 do ...	1 00	3 00
Horse towing scow.....	do	Isaac McMahon.....	12 do ...	1 00	12 00
Laborer.....	do	Daniel Meagher.....	8 do ...	1 00	8 00
do .....	do	Jonathan Woodall.....	14 do ...	1 00	14 00
Mason.....	do	Geo. Brooks.....	2 do ...	2 00	4 00
Laborer.....	do	Wm. Assell.....	26 do ...	1 00	26 00

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**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of April, 1870, Laborers on Repairs, Banks, &c., chargeable to Ordinary Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer .....	April, 1870	Jos. Numan.....	24 days...	1 00	24 00
do .....	do	Peter Seburn.....	18 do ...	1 00	18 00
Repairing wheelhouse.....	do	John Bruce .....	16 do ...	1 25	20 00
Laborer .....	do	Patk. Kelley .....	24 do ...	1 25	30 00
do .....	do	John Corbett.....	21½ do ...	1 00	19 50
do .....	do	Benj. Redfern.....	19½ do ...	1 00	19 50
do .....	do	Michael McAuliffe.....	19½ do ...	1 00	19 50
do .....	do	Alex. Shields.....	20 do ...	1 00	20 00
Team hauling.....	do	Jas. Anderson.....	3 do ...	2 50	7 50
do .....	do	Oscar Upper.....	2 do ...	2 50	5 00
do .....	do	Dan. Kelley.....	14½ do ...	2 50	36 25
Carpenter .....	do	Peter Wintermood.....	12 do ...	1 25	15 00
Laborer .....	do	John Harriston.....	12 do ...	1 00	12 00
Team hauling.....	do	David Ramsy.....	3 do ...	3 00	9 00
Laborer.....	do	James Thrush .....	23½ do ...	1 00	23 50
do .....	do	Francis Ramsay, jun.....	25 do ...	1 00	25 00
do .....	do	Ira Brassie .....	21½ do ...	1 00	21 50
do .....	do	John Scott, jun.....	11 do ...	1 00	11 00
do .....	do	Robt. Scott.....	7½ do ...	1 00	7 25
do .....	do	David Hicks.....	7 do ...	1 00	7 00
do .....	do	George Hicks.....	11 do ...	1 00	11 00
do .....	do	Lewis Bessie.....	10 do ...	1 00	10 00
do .....	do	Alfred Fite.....	1 do ...	1 00	1 00
do .....	do	John Scott, sen.....	7 do ...	1 00	7 00
do .....	do	Thos McKie.....	8 do ...	1 00	8 00
do .....	do	Wm. Ward.....	3 do ...	1 00	3 00
do .....	do	John Logan.....	3 do ...	1 00	3 00
do .....	do	Wm. Logan.....	3 do ...	1 00	3 00
do .....	do	John Thrush.....	11½ do ...	1 00	11 25
do .....	do	Hiram Fite.....	1 do ...	1 00	1 00
do .....	do	Theodore Sheehan.....	1 do ...	1 00	1 00
					154 50

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 1, during the month of August, 1869, to Office Establishment, Paymaster, Clerk, &c., chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Paymaster and Clerk.....	Mar., 1842	Thos. Adams.....	1 month...	120 00	120 00
Attending Office .....	Aug., 1852	Wm. Cook.....	1 do ...	12 00	12 00
					132 00



PAY-LIST, in duplicate, of Persons employed on the Welland Canal, Sheet No 1, Division No. 2, during the month of August, 1869, to St. Catharines Establishment, Har- or Master, Head Carpenter, Lock and Bridge Tenders, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Nam:s.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Har. master, &c., Dalhousie..	Jan., 1858	J. P. Boosnar.....	1 month...	93 75	93 75
Head carpenter.....	Apr., 1843	Richard Collier.....	1 do ...	75 00	75 00
Lock bridge master, No. 1....	Sept., 1853	Jas. Woodall.....	1 do ...	34 00	34 00
do assistant No. 1.....	July, 1856	Thos. Barrett.....	1 do ...	34 00	34 00
do master No. 2.....	W. C. Co. Wm. Chace.....	1 do ...	30 00	30 00	
do assistant No. 2.....	May, 1860	John Nestor.....	1 do ...	30 00	30 00
do master No. 3.....	Sept., 1845	Wm. Walker.....	1 do ...	30 00	30 00
do do and bridge No. 4	W. C. Co. Jas. Malpass.....	1 do ...	34 00	34 00	
do do do No. 5	Apr., 1845	Frank Meagher.....	1 do ...	30 00	30 00
do do do No. 6	July, 1854	Michael Driscoll.....	1 do ...	30 00	30 00
do do do No. 7	May, 1865	James Bradley.....	1 do ...	30 00	30 00
do do do No. 8	July, 1854	Daniel McCarthy.....	1 do ...	30 00	30 00
do do do No. 9	Sept., 1853	Edward Boyle.....	1 do ...	30 00	30 00
do do do No. 10	do 1856	Bart. Clarke.....	1 do ...	30 00	30 00
do do do No. 11	Apr., 1853	John Reilly ..	1 do ...	30 00	30 00
do do do No. 12	May, 1855	Jas. Conger.....	1 do ...	30 00	30 00
do do lock No. 13.....	Jan., 1864	Thos. Flynn.....	1 do ...	30 00	30 00
do do do No. 14.....	July, 1866	Geo. A. Daily.....	1 do ...	30 00	30 00
do do and bridge No. 15	June, 1849	Michael Moran.....	1 do ...	34 00	34 00
do do do No. 16	Aug., 1845	Wm. Cochrane.....	1 do ...	30 00	30 00
do do do No. 17	do 1847	Wm. Cavers.....	1 do ...	30 00	30 00
do do do No. 18	June, 1853	John Strong.....	1 do ...	30 00	30 00
do do do No. 19	do 1847	Jas. McCabe.....	1 do ...	30 00	30 00
do do do No. 20	do 1845	Wm. Williams.....	1 do ...	30 00	30 00
do do do No. 21	do 1854	Andrew Taggart.....	1 do ...	30 00	30 00
do do do No. 22	Sept., 1857	James Phillips.....	1 do ...	30 00	30 00
do do do No. 23	June, 1854	Thos. Turner.....	1 do ...	30 00	30 00
do do do No. 24	Dec., 1863	Wm. Fegan.....	1 do ...	30 00	30 00
do do do No. 25	Apr., 1853	Jas. Flewallen.....	1 do ...	30 00	30 00
Guard lock, Thorold.....	do 1861	Benj. McMahon.....	1 do ...	30 00	30 00
do assistant.....	do 1861	Rufus Swazze.....	1 do ...	30 00	30 00
Bridge tender, lock No 2.....	Sept., 1866	George Howe.....	1 do ...	26 00	26 00
do St. Catharines	Apr., 1850	John McCann.....	1 do ...	26 00	26 00
do Keefers.....	Feb., 1863	Samuel Boothe.....	1 do ...	26 00	26 00
					1,132 75

**PAY LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 3, during the month of August, 1869, to Port Robinson Establishment, Carpenter on Repairs, Regulating Water Lock and Bridge Tender, from Thorold to Junction, Chargeable to Maintenance.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter on repairs, Thorold Junction and Marshville.	April, 1861..	Thos. R Secord.....	1 month..	75 00	75 00
Foreman and charge of water at Allanburgh.	Welland Canal Co.	Henry Higgins .....	1 do ...	30 00	30 00
Lock Foreman, Allanburgh...	April, 1861..	John Bruce... ..	1 do ...	30 00	30 00
do Assistant do ...	Sept., 1865..	Wm. Upper.....	1 do ...	30 00	30 00
Gd. Lock Foreman, Thorold..	Aug., 1866..	Daniel O'Leary .....	1 do ...	30 00	30 00
do Assistant do ...	April, 1850..	Aaron Higgins.....	1 do ...	30 00	30 00
do do do ...	July, 1851..	Wm. Higgins.....	1 do ...	30 00	30 00
do do do ...	April, 1850..	I. Radcliffe.....	1 do ...	30 00	30 00
Lock Foreman, Pt. Robinson.	July, 1861..	Jas. McCoppen .....	1 do ...	26 00	26 00
do Aqueduct.....	April, 1851..	John Watson.....	1 do ...	26 00	26 00
Attending Bridge, Junction ..	May, 1856..	George Hannah .....	1 do ...	30 00	30 00
do Assistant do ...	Aug., 1866..	Chas. Hannah.....	1 do ...	30 00	30 00
Bridge Foreman, Hursts.....	April, 1845..	John O'Neil.....	1 do ...	26 00	26 00
do Assistant do ...	do 1853..	Thos. Price .....	18 days....	1 00	18 00
do Foreman, Marlatts....	Nov., 1854..	John McDonald.....	18 do ....	1 00	18 00
do Assistant do ...	Feb., 1864..	John Gearon .....	1 month..	26 00	26 00
do Foreman, Allanburgh	April, 1856..	James Waters .....	1 do ...	26 00	26 00
do Assistant do ...	Sept., 1854..	Wm Leary.....	1 do ...	26 00	26 00
do Foreman, Pt. Robinson	July, 1859..	George Thomson ...	1 do ...	26 00	26 00
do Assistant do ...	Aug., 1863..	James Walsh .....	1 do ...	26 00	26 00
do Foreman, Quaker.....	do 1865..	Nelson Higgins.....	1 do ...	26 00	26 00
do Assistant do ...	April, 1855..	Bartholomew Brennan....	1 do ...	26 00	26 00
do Foreman, Burgess.....	do 1849..	Hugh Quinlin.....	1 do ...	26 00	26 00
do Assistant do ...	July, 1866..	James Edmunds.....	1 do ...	26 00	26 00
do Foreman, Aqueduct...	Aug., 1868..	James Foster.....	1 do ...	26 00	26 00
do Assistant do ...	do 1863..	David Tuft.....	1 do ...	26 00	26 00
					475 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 4, during the month of August, 1869, to Port Colborne Establishment, Harbor Master, &c., Registrar of Water Lock and Bridge Foreman, from Junction to Colborne, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Har. Master, &c., Colborne..	April, 1858	Nicholas Higgins.....	1 month...	50 00	50 00
Lock and Br. Master do ...	do 1849	John McGillivray.....	1 do ...	34 00	34 00
do do Assistant	Aug., 1863	John Sweeney.....	1 do ...	34 00	34 00
do do do	May, 1856	John Hinchy.....	1 do ...	34 00	34 00
do do do	April, 1851	Patrick Fahey.....	1 do ...	34 00	34 00
Labor on banks, &c.....	Aug., 1854	Michael Madden.....	26 days....	1 00	26 00
Attending ferry scow..	do 1863	Edward Hanley.....	1 month...	34 00	34 00
Bridge tender, stone bridge...	June, 1869	Joseph Dickinson.....	1 do ...	26 00	26 00
do Assistant.....	Sept., 1854	Jeremiah Daley.....	1 do ...	26 00	26 00
					298 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 5, during the month of August, 1869, to Port Maitland Establishment, Foreman, Registrar of Water, &c., Lock, from Maitland to Dunnville, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman in charge of water at Dunnville.....	W. C. Co.	Frank Ramsay.....	1 month...	50 00	50 00
Guard lock foreman in charge of water at Dunnville.....	June, 1856	Robt. Morrison .....	1 do ...	30 00	30 00
Lock foreman, bridge, creek..	W. C. Co.	Thos. Connor .....	1 do ...	30 00	30 00
do assistant.....	April, 1861	Patrick Cummings.....	1 do ...	26 00	26 00
Attending 2 bridges, bridge and creek.....	Aug., 1869	Geo. Harris .....	1 do ...	26 00	26 00
Labor on banks, &c.....	June, 1851	Chas. Thrush.....	29 days...	1 00	29 00
Removing drift wood.....	Aug., 1869	Ira Bessey.....	9 do ...	1 25	11 25
Repairs.....	do 1869	Free Green.....	.....	.....	4 00
					206 25

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 6, during the month of August, 1869, to Lock Laborers' Establishment, Lock and Bridge Assistants, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Lock and bridge assistant, No. 1	Aug., 1864	Andrew Hamilton.....	1 month...	34 00	34 00
do do	1 Nov., 1854	John Howe.....	1 do ...	34 00	34 00
do do	2 April, 1853	Walter Weaver.....	1 do ...	30 00	30 00
do do	2 Nov., 1854	Jas. Howe.....	1 do ...	30 00	30 00
do do	3 do 1854	Arthur Case.....	1 do ...	30 00	30 00
do do	4 do 1854	John Turnbull.....	1 do ...	34 00	34 00
do do	5 do 1854	Wm. Hare.....	1 do ...	30 00	30 00
do do	6 April, 1854	Hugh Hazen.....	1 do ...	30 00	30 00
do do	7 do 1855	Robt. Boyle .....	1 do ...	30 00	30 00
do do	8 Aug., 1867	Horton Plumsted.....	1 do ...	30 00	30 00
do do	9 do 1853	Arthur Bradley.....	1 do ...	30 00	30 00
do do	10 Feb., 1867	Wm. Wilson.....	1 do ...	30 00	30 00
do do	11 Mar., 1868	Casper Bradley.....	1 do ...	30 00	30 00
do do	12 May, 1868	Martin Nestor.....	1 do ...	30 00	30 00
do do	13 Sept., 1868	Alex. Winslow .....	1 do ...	30 00	30 00
do do	14 Oct., 1867	Henry Hair .....	1 do ...	30 00	30 00
do do	15 Sept., 1856	James Delaney .....	1 do ...	34 00	34 00
do do	16 Mar., 1868	Robt. Gibson.....	1 do ...	30 00	30 00
do do	17 Dec., 1862	Frank Weaver.....	1 do ...	30 00	30 00
do do	18 do 1855	John Armstrong .....	1 do ...	30 00	30 00
do do	19 June, 1853	James Nordill .....	1 do ...	30 00	30 00
do do	20 July, 1852	Robert Bradley.....	1 do ...	30 00	30 00
do do	21 do 1856	James McAuley.....	1 do ...	30 00	30 00
do do	22 Aug., 1854	Wm. Burley.....	1 do ...	30 00	30 00
do do	23 Oct., 1854	Stephen Cane.....	1 do ...	30 00	30 00
do do	24 Dec., 1862	Austin Moran.....	1 do ...	30 00	30 00
do do	25 April, 1866	Patrick Friel.....	1 do ...	30 00	30 00
Bridge tender, Lock No. 2 .....	July, 1850	Chas. Kearns.....	1 do ...	26 00	26 00
do St. Catharines .....	do 1859	Dennis Daley.....	1 do ...	26 00	26 00
do Keefer's.....	Nov., 1863	Jno. McNamara.....	1 do ...	26 00	26 00
					904 00



## ACCOUNTS Chargeable to Welland Canal Maintenance.

Date.	Nature of Work.	\$ cts.	\$ cts.
1869.	DEPARTMENT OF PUBLIC WORKS.		
July.....	To Wm. J. & J. McCalla—		
	49 galls. coal oil, at 40c.....	19 60	
August....	9 do lubricating oil, at 75c.....	6 75	
	64 do coal oil, at 40c.....	25 60	
	8 do lubricating oil, at 75c.....	6 00	
	1 doz. lamp wicks.....	0 18	
	1 do chimneys.....	1 50	
			59 63
July 31...	To John Fitzgerald—		
	Advertising for tenders (building pier at Port Dalhousie), 40 lines, first insertion, at 8c.....	3 20	
	14 subsequent insertions, at 2c.....	11 20	
			14 40
Aug. 16...	To St. Catharines and Welland Canal Gas Company—		
	For lighting the Welland Canal with gas from opening of navigation to date, at \$5,512 per annum, per Contract No. 3,229.....	2,756 00	
	LESS—Abatement for 12 lamps not lighted one night...	6 00	
			2,750 00
do 6...	To D. W. Bixby—		
do 11...	1 bottle Walkden's ink.....	0 60	
do 27...	1 ream hand made paper.....	8 50	
do 27...	1 do note paper.....	2 00	
do 27...	1 box envelopes.....	1 50	
do 27...	2 pencils.....	0 15	
			12 75
			2,836 78

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 1, during the month of September, 1869, to Office Establishment, Paymaster, Clerk, &c., chargeable to Maintenance.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Paymaster and Clerk.....	Mar., 1842	Thomas Adams.....	1 month...	120 00	120 00
Attending Office.....	April, 1852	M. Cook.....	1 do ...	12 00	12 00
					132 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 2, during the month of September, 1869, to St. Catharines Establishment, Harbor Master, Head Carpenter, Lock and Bridge Tenders, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor Master and Assistant Collector .....	Jan., 1858	J. P. Boomer.....	1 month...	93 75	93 75
Head Carpenter .....	April, 1843	Richard Collier.....	1 do ...	75 00	75 00
Lock and Bridge Master, No. 1	Sept., 1853	James Woodall.....	1 do ...	34 00	34 00
do Assistant do 1	July, 1856	Thomas Barrett.....	1 do ...	34 00	34 00
do Master do 2	Welland Canal Co	William Chace.....	1 do ...	30 00	30 00
do Assistant do 2	May, 1860	John Naster.....	1 do ...	30 00	30 00
do Master do 3	Sept., 1845	William Walker.....	1 do ...	30 00	30 00
do and Bridge Master do 4	Welland Canal Co	James Malpass. ....	1 do ...	34 00	34 00
do Master do 5	April, 1855	Frank Meighan.....	1 do ...	30 00	30 00
do do do 6	July, 1854	Michael Driscoll.....	1 do ...	30 00	30 00
do do do 7	Mar., 1865	James Bradley.....	1 do ...	30 00	30 00
do do do 8	April, 1855	Daniel McCarthy.....	1 do ...	30 00	30 00
do do do 9	Sept., 1853	Edward E. Boyle.....	1 do ...	30 00	30 00
do do do 10	do 1856	Bart. Clarke.....	1 do ...	30 00	30 00
do do do 11	April, 1853	John Reilly.....	1 do ...	30 00	30 00
do do do 12	May, 1855	James Cougan.....	1 do ...	30 00	30 00
do do do 13	Jan., 1864	Thos. Flynn.....	1 do ...	30 00	30 00
do do do 14	July, 1866	Geo. A. Dailey.....	1 do ...	30 00	30 00
do and Bridge Master do 15	June, 1849	Michael Moran.....	1 do ...	34 00	34 00
do Master do 16	Aug., 1845	Wm. Cochrane.....	1 do ...	30 00	30 00
do do do 17	do 1847	Wm. Cavers.....	1 do ...	30 00	30 00
do do do 18	June, 1853	John Strong.....	1 do ...	30 00	30 00
do do do 19	do 1847	James McCabe.....	1 do ...	30 00	30 00
do do do 20	do 1845	William Williams.....	1 do ...	30 00	30 00
do do do 21	do 1854	Andrew Taggart.....	1 do ...	30 00	30 00
do do do 22	do 1863	James Phillips.....	1 do ...	30 00	30 00
do do do 23	do 1854	Thos. Turner.....	1 do ...	30 00	30 00
do and Bridge Master do 24	Dec., 1863	Wm. Fagun.....	1 do ...	30 00	30 00
do Master do 25	April, 1853	Jas. Flewallen.....	1 do ...	30 00	30 00
Guard Lock Tender, Thorold..	do 1861	Ben. McMahon.....	1 do ...	30 00	30 00
do do Assistant do	do 1861	Rufus Swazzie.....	1 do ...	30 00	30 00
Bridge Tender, Lock No. 2....	Sept., 1856	George Howe.....	1 do ...	26 00	26 00
do St. Catharines	April, 1850	John McCann.....	1 do ...	26 00	26 00
					1,132 75

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 3, during the month of September, 1869, to Port Robinson Establishment, Carpenters on Repairs, Regulating 9 Water Lock and Bridge Tenders, from Thorold to Junction, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenters on repairs, Thorold Junction and Marshville.....	April, 1861	Thos. R. Secord .....	1 month...	75 00	75 00
Foreman, and in charge of water at Allanburgh.....	W. Canal				
	Co.....	Henry Higgins.....	1 do ...	30 00	30 00
Lock master, Allanburgh.....	April, 1861	John Bruce.....	1 do ...	30 00	30 00
do assistant.....	Sept., 1865	Wm. Upper.....	1 do ...	30 00	30 00
Guard lock tender, Allanburgh...	Aug., 1866	Dan. O'Leary .....	1 do ...	30 00	30 00
do .....	April, 1850	Aaron Higgins .....	1 do ...	30 00	30 00
do .....	July, 1851	Wm. Higgins.....	1 do ...	30 00	30 00
do .....	April, 1850	J. C. Radcliffe .....	1 do ...	30 00	30 00
Lock master, Port Robinson.....	Dec., 1862	Jas. McCoppen .....	1 do ...	26 00	26 00
do aqueduct.....	April, 1856	John Watson.....	1 do ...	26 00	26 00
Attending 21st junction .....	May, 1856	George Hannah.....	1 do ...	30 00	30 00
do assistant .....	Aug., 1866	Chas. Hannah.....	1 do ...	30 00	30 00
Bridge tender, Hurst's.....	April, 1845	John O'Neill .....	1 do ...	26 00	26 00
do assistant.....	do 1853	Thomas Price.....	1 do ...	26 00	26 00
do .....	Nov., 1854	John McDonell.....	1 do ...	26 00	26 00
do .....	Feb., 1864	John Gearon .....	1 do ...	26 00	26 00
do Allanburgh.....	April, 1866	James Waters .....	1 do ...	26 00	26 00
do assistant.....	Sept., 1854	Wm. O'Leary.....	1 do ...	26 00	26 00
do Port Robinson.....	July, 1859	Geo. Thomson.....	1 do ...	26 00	26 00
do .....	Aug., 1863	James Walsh .....	1 do ...	26 00	26 00
do .....	do 1865	Nelson Higgins.....	1 do ...	26 00	26 00
do assistant.....	April, 1855	B. Brinnan .....	1 do ...	26 00	26 00
do Burgess .....	do 1849	Hugh Quinlin .....	1 do ...	26 00	26 00
do assistant.....	Feb., 1866	Jas. Edmunds .....	1 do ...	26 00	26 00
do aqueduct .....	Aug., 1868	Jas. Foster.....	1 do ...	26 00	26 00
do assistant.....	do 1863	David Tuft.....	1 do ...	26 00	26 00
					761 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 4, during the month of September, 1869, to Port Colborne Establishment, Harbor Master, Carpenter, Regulating Water Lock and Bridge Tenders from Junction to Colborne, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor Master, &c., Colborne	Mar., 1858	Nicholas Higgins.....	1 month...	50 00	50 00
Lock and Bridge Master, Colborne.....	April, 1846	John McGillivray .....	1 do ...	34 00	34 00
do do .....	Aug., 1863	John Sweeney.....	1 do ...	34 00	34 00
do do .....	May, 1853	John Hinchey.....	1 do ...	34 00	34 00
do do .....	April, 1851	Pat. Fahey.....	1 do ...	34 00	34 00
Laborer, attendant bridge—					
Stone Bridge.....	Aug., 1854	Michael Madden.....	26 days....	1 00	26 00
Attending ferry scow.....	May, 1863	Edward Hanly .....	1 month...	34 00	34 00
Bridge Tender, Stone Bridge..	June, 1869	Jas. Dickenson .....			
do Assistant.....	Sept., 1854	Jeremiah Daley .....	1 month...	26 00	26 00
					272 00



**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 5, during the month of September, 1869, to Port Maitland Establishment, Foreman in charge of Water Lock and Bridge Tenders from Maitland to Dunnville, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman and in charge of water at Dunnville.....	Welland Canal Co	Frank Ramsey.....	1 month...	50 00	50 00
Guard Lock to Dunnville.....	June, 1856	Robt. Morrison.....	1 do ...	30 00	30 00
Lock Tender, Port Maitland..	Welland Canal Co	Thomas Connor.....	1 do ...	30 00	30 00
Assistant Lock Tender, Port Maitland .....	June, 1863	Pat. Cummings.....	1 do ...	26 00	26 00
Attending two Bridges, Bd. Creek .....	April, 1866	George Harris.....	1 do ...	26 00	26 00
Laborer on Banks.....	June, 1851	Charles Thrush.....	28½ days...	1 00	28 50
do .....	Sept., 1859	James Thrush.....	8 do ...	1 00	8 00
do .....	do 1859	Robt. Morrison, jr.....	3 do ...	1 00	3 00
Carpenter.....	do 1859	Ira Bessey.....	7 do ...	1 25	8 75
					210 25

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 6, during the month of September, 1869, to Lock Laborers' Establishment, Lock and Bridge Assistants, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Lock and bridge master, No. 1....	Aug., 1864	Andrew Hamilton.....	1 month...	34 00	34 00
do do do 1....	Nov., 1854	John Howe .....	1 do ...	34 00	34 00
Lock master, No. 2.....	April, 1852	Walter Weaver.....	1 do ...	30 00	30 00
do 2.....	Aug., 1854	James Howe .....	1 do ...	30 00	30 00
do 3.....	April, 1854	Arthur Carroll .....	1 do ...	30 00	30 00
Lock and bridge master, No. 4....	do 1850	John Turnbull .....	1 do ...	34 00	34 00
Lock master, No. 5.....	do 1862	William Hare .....	1 do ...	30 00	30 00
do 6.....	do 1854	Hugh Hagen .....	1 do ...	30 00	30 00
do 7.....	do 1854	Robt. Boyle .....	1 do ...	30 00	30 00
do 8.....	Aug., 1867	Horton Plumsted ....	1 do ...	30 00	30 00
do 9.....	April, 1856	Arthur Bradley .....	1 do ...	30 00	30 00
do 10.....	do 1867	William Wilson .....	1 do ...	30 00	30 00
do 11.....	Mch., 1868	Casper Bradley.....	1 do ...	30 00	30 00
do 12.....	Sept., 1863	Martin Nestor .....	1 do ...	30 00	30 00
do 13.....	do 1868	Alex'r Winslow .....	1 do ...	30 00	30 00
do 14.....	Oct., 1867	Henry Hair.....	1 do ...	30 00	30 00
Lock and bridge assistant, No. 15.	Sept., 1856	James Delaney .....	1 do ...	34 00	34 00
Lock assistant, No. 16.....	Mch., 1868	Robt. Gibson.....	1 do ...	30 00	30 00
do 17.....	April, 1862	Frank Weaver .....	1 do ...	30 00	30 00
do 18.....	Oct., 1855	John Armstrong .....	1 do ...	30 00	30 00
do 19.....	June, 1853	James Madill.....	1 do ...	30 00	30 00
do 20.....	July, 1862	Robt. Bradley.....	1 do ...	30 00	30 00
do 21.....	do 1856	Jas. McAuley .....	1 do ...	30 00	30 00
do 22.....	Aug., 1854	Wm. Burlay.....	1 do ...	30 00	30 00
do 23.....	Oct., 1854	Stephen Kane .....	1 do ...	30 00	30 00
Lock and bridge assistant, No. 24.	Dec., 1863	Austin Moran .....	1 do ...	30 00	30 00
do do do 25.	April, 1866	Pat. Friel.....	1 do ...	30 00	30 00
Bridge tender, Lock No. 2 .....	June, 1863	Chas. Kearnes .....	1 do ...	26 00	26 00
do St. Catharines.....	Sept., 1859	Dennis Daley .....	1 do ...	26 00	26 00
do Keeter's .....	Oct., 1863	Jno. McNamara.....	1 do ...	26 00	26 00
					904 00

## ACCOUNTS Chargeable to Welland Canal Maintenance.

Date.	Nature of Work.	\$ cts.	\$ cts.
1869.			
Sept.....	To Wm. J. & J. McCalla—		
	64 gallons coal oil at 40c.....	25 60	
	17 do lubricating oil at 75c.....	12 75	
	8 doz. lamp wicks at 18c.....	1 44	
	1 do chimneys.....	1 50	
	1 globe lamp.....	1 00	42 29
Aug. 26...	To John Fitzgerald—		
	Advertising for tenders, pier at Pt. Maitland and Dunnville		
	Dam, 1st insertion, 40 lines, at 8c.....	3 20	
	8 subsequent insertions at 2c.....	6 40	9 60
	To St. Catharines Post Office—		
	12, 10, 5, 30, 8, 21, 35, 28, 6.....	1 55	
	3, 6, 20, 6, 10, 6, 15, 6, 8, 6, 10.....	1 12	
	10, 13, 8, 21, 14, 17, 21, 10; \$2, 10, 10, 6.....	3 40	
	Stamps, \$1; 26, 28, 45, 18, 16, 10, 28, 6.....	2 77	
	21, 10, 9, 18, 51, \$1.50; 20, 96, 16, 33, 10.....	4 34	
	30, 16, 20, stamps, \$3.00; 10, 10, 24, 20.....	4 30	
	18, 32, 22, 28, 16, 5, 6, 10, 15, 6.....	1 58	
	Box to 30th September.....	50	19 56
Feb. 15....	To Wm. S. Copeland & Co—		
do 16....	1 bottle ink, \$1; 2½ doz. rubber bands, \$1.25.....	2 25	
Aug. ....	6 quire H. M. cap, \$3; large envelopes, 75c.....	3 75	
do 7....	100 large cast envelopes.....	2 00	
do 7....	1 box pens, \$1.50; red tape, 38c.....	1 88	
do 7....	1 quire H. M. foolscap.....	54	10 38
			81 83

PAY-LIST in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 1, during the month of October, 1863, to Office Establishment, Pay-Sheet, &c., Chargeable to Maintenance.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Paymaster and Clerk.....	March, 1842..	Thos. Adams.....	1 month..	120 00	120 00
Attending Office.....	April, 1852..	Wm. Cook.....	1 do ..	12 00	12 00
					132 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 2, during the month of October, 1869, to St. Catharines Establishment, Harbor Master, Head Carpenter, Lock and Bridge Tenders, from Dalhousie to Thorold, Chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor Master, &c, Dalhousie.....	Jan., 1858	J. P. Badner .....	1 month	93 75	93 75
Head Carpenter do .....	Apr., 1843	Richard Collier.....	1 do ...	75 00	75 00
Lock and Bridge Master, Lock No. 1..	Sept., 1853	James Woodall.....	1 do ...	34 00	34 00
do Assistant do No. 1..	July, 1856	Thomas Barrett.....	1 do ...	34 00	34 00
do Master do No. 2..	W. C. Co.	Wm. Chace .....	1 do ...	30 00	30 00
do Assistant do No. 2..	Mar., 1860	John Nestor.....	1 do ...	30 00	30 00
do Master do No. 3..	Sept., 1845	Wm. Walker.....	1 do ...	30 00	30 00
do and Bridge Master do No. 4..	W. C. Co.	Jas. Malpass.....	1 do ...	34 00	34 00
do Master do No. 5..	Apr., 1855	Frank Meaghar.....	1 do ...	30 00	30 00
do do do No. 6..	July, 1854	Mich. Driscoll.....	1 do ...	30 00	30 00
do do do No. 7..	Mar., 1865	Jas. Bradley.....	1 do ...	30 00	30 00
do do do No. 8..	Apr., 1855	Dan. McCarthy.....	1 do ...	30 00	30 00
do do do No. 9..	Sept., 1853	Ed. Boyle .....	1 do ...	30 00	30 00
do do do No. 10..	do 1856	Bart. Clarke.....	1 do ...	30 00	30 00
do do do No. 11..	Apr., 1853	John Reilly.....	1 do ...	30 00	30 00
do do do No. 12..	May, 1855	Jas. Congan.....	1 do ...	30 00	30 00
do do do No. 13..	Jan., 1864	Thos. Flynn.....	1 do ...	30 00	80 00
do do do No. 14..	July, 1866	Geo. A. Darby.....	1 do ...	30 00	30 00
do and Bridge Master do No. 15..	June, 1849	Mich. Moran.....	1 do ...	34 00	34 00
do Master do No. 16..	Aug., 1845	Wm. Cochrane.....	1 do ...	30 00	30 00
do do do No. 17..	do 1847	Wm. Cavers.....	1 do ...	30 00	30 00
do do do No. 18..	June, 1853	John Strong.....	1 do ...	30 00	30 00
do do do No. 19..	do 1847	Jas. McCabe.....	1 do ...	30 00	30 00
do do do No. 20..	do 1845	Wm. Williams.....	1 do ...	30 00	30 00
do do do No. 21..	do 1854	Andrew Taggart .....	1 do ...	30 00	30 00
do do do No. 22..	do 1863	Jas. Philips.....	1 do ...	30 00	30 00
do do do No. 23..	do 1854	Thos. Turner.....	1 do ...	20 00	30 00
do and Bridge Master do No. 24..	Dec., 1863	Wm. Fegan.....	1 do ...	30 00	30 00
do Master do No. 25..	Apr., 1862	Jas. Flewallen.....	1 do ...	30 00	30 00
Guard Lock Tender, Thorold.....	do 1861	Ben. McMahon .....	1 do ...	30 00	30 00
do Assistant do .....	do 1861	Rufus Swazze.....	1 do ...	30 00	30 00
Bridge Tender, Lock No. 2.....	Sept., 1856	George Howe.....	1 do ...	26 00	26 00
do St. Catharines.....	Apr., 1850	John McCann.....	1 do ...	26 00	26 00
do Keefer's.....	Feb., 1863	Samuel Boothe.....	1 do ...	26 00	26 00
					1,132 75



**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 3, during the month of October, 1869, to Port Robinson Establishment, Carpenter on Repairs, Regulating Water, Lock and Bridge Tenders, from Thorold to Junction, Chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter on Repairs, Thorold, Junction and Marshville.	Apr., 1861	Thos. R. Secord.....	1 month..	75 00	75 00
Foreman in charge of water at Allanburgh.	W. C. Co.	Henry Higgins. ....	1 do ...	30 00	30 00
Lock Master, Allanburgh.....	Apr., 1861	John Bruce.....	1 do ...	30 00	30 00
do Assistant do .....	Sept., 1865	Wm. Upper.....	1 do ...	30 00	30 00
Gd. Lock Tender, Allanburgh..	Aug., 1866	Dan. O'Leary.....	1 do ...	30 00	30 00
do do .....	Apr., 1850	Aaron Higgins .....	1 do ...	30 00	30 00
do do .....	July, 1851	Wm. Higgins.....	1 do ...	30 00	30 00
do do .....	Apr., 1850	Isaac Radcliffe.....	1 do ...	30 00	30 00
Lock Tender, Port Robinson ..	Dec., 1862	James McCoppen.....	1 do ...	26 00	26 00
do Aqueduct .....	Apr., 1851	John Watson.....	1 do ...	26 00	26 00
Attending Bridge, Junction ..	May, 1856	George Hannah.....	1 do ...	30 00	30 00
do Assistant do .....	Aug., 1866	Charles Hannah.....	1 do ...	30 00	30 00
Bridge Tender, Hursts.....	Apr., 1845	John O'Neil.....	1 do ...	26 00	26 00
do Assistant do .....	do 1853	Thos. Price.....	1 do ...	26 00	26 00
do Tender, Marlatts.....	Nov., 1854	John McDonald.....	1 do ...	26 00	26 00
do Assistant do .....	July, 1864	John Gearon .....	1 do ...	26 00	26 00
do Tender, Allanburgh.....	Apr., 1866	James Waters.....	1 do ...	26 00	26 00
do Assistant do .....	Sept., 1854	Wm. Leary.....	1 do ...	26 00	26 00
do Tender, Port Robinson ..	July, 1859	Geo. Thomson.....	1 do ...	26 00	26 00
do Assistant do .....	Aug., 1863	Jas. Walsh.....	1 do ...	26 00	26 00
do Tender, Quaker.....	do 1865	Nelson Higgins.....	1 do ...	26 00	26 00
do Assistant do .....	Apr., 1855	Bart. Brennan.....	1 do ...	26 00	26 00
do Tender, Burgars .....	do 1849	Hugh Quinlin.....	1 do ...	26 00	26 00
do Assistant do .....	July, 1866	Jas. Edmunds.....	1 do ...	26 00	26 00
do Tender, Aqueduct .....	Aug., 1868	Jas. Foster.....	1 do ...	26 00	26 00
do Assistant do .....	do 1863	David Tuft.....	1 do ...	26 00	26 00
					761 00

**PAY-LIST**, in duplicate, of Persons employed on the Welland Canal, Sheet No. 1, Division No. 4, during the month of October, 1869, at Port Colborne Establishment, Harbor Master, Carpenter, Regulating Water, Lock and Bridge Tenders from Junction to Colborne, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor master, &c., Colborne	Mar., 1858	Nicholas Higgins .....	1 month...	50 00	50 00
Lock and br. master do ...	Apr., 1849	John McGillvray.....	1 do ...	34 00	34 00
do do .....	Aug., 1863	John Sweeney.....	1 do ...	34 00	34 00
do do .....	May, 1856	John Hinchey.....	1 do ...	34 00	34 00
do do .....	Apr., 1851	Patrick Fahey .....	1 do ...	34 00	34 00
Labor on banks and attending stone bridge. ....	Aug., 1854	Michael Madden.....	26 days...	1 00	26 00
Attending ferry scow.....	May, 1863	Edward Hanly.....	1 month...	34 00	34 00
Bridge tender, stone bridge..	June, 1869	Jos. Dickenson.....	.....	.....	.....
do asst. do .....	Sept., 1854	Jeremiah Daley.....	1 do ...	26 00	26 00
					272 00

**PAY-LIST**, in duplicate, of Persons employed on the Welland Canal, Sheet No. 1, Division No. 5, during the month of October, 1869, at Port Maitland Establishment, Foreman, Regulating Water, &c., Lock and Bridge Tenders, from Maitland to Dunnville, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman, &c., in charge of water at Dunnville.....	W. C. Co.	Frank Ramsay.....	1 month...	50 00	50 00
Gd. lock tender, Dunnville...	June, 1856	Robt. Morrison.....	1 do ...	30 00	30 00
Lock tender bridge at creek...	W. C. Co.	Thomas Connor.....	1 do ...	30 00	30 00
do asst. do	Apr., 1861	Patrick Cummings .....	1 do ...	26 00	26 00
Attending 2 bridges at creek	Aug., 1859	Geo. Harris.....	1 do ...	26 00	26 00
Laborer on banks, &c.....	June, 1851	Chas. Thrush.....	28 days...	1 00	28 00
do do	Oct., 1869	James Thrush.....	25 do ...	1 00	25 00
do do	do	Robt. Morrison, jun.....	25½ do ...	1 00	25 25
do do	do	Edward Cooper.....	6½ do ...	1 00	6 50
Team hauling.....	do	F. K. Wallis.....	6 do ...	2 50	15 00
					261 75

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 6, during the month of October, 1869, to Lock Laborers' Establishment, Lock and Bridge Assistants, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Lock and bridge asst. No. 1...	Aug., 1864	Andrew Hamilton.....	1 month...	34 00	34 00
Lock assistant No. 1.....	Nov., 1854	John Howe.....	1 do ...	34 00	34 00
do No. 2.....	April, 1852	Walter Weaver.....	1 do ...	30 00	30 00
do No. 2.....	Aug., 1854	James Howe.....	1 do ...	30 00	30 00
do No. 3.....	April, 1854	Arthur Carl.....	1 do ...	30 00	30 00
Lock and bridge asst. No. 4...	do 1850	John Turnbull .....	1 do ...	34 00	34 00
Lock assistant No. 5.....	do 1862	Wm. Hare.....	1 do ...	30 00	30 00
do No. 6.....	do 1854	Hugh Higgins.....	1 do ...	30 00	30 00
do No. 7.....	do 1854	Robert Boyle.....	1 do ...	30 00	30 00
do No. 8.....	Aug., 1867	Hortens Plumsted .....	1 do ...	30 00	30 00
do No. 9.....	April, 1856	Arthur Bradley.....	1 do ...	30 00	30 00
do No. 10.....	do 1867	William Wilson.....	1 do ...	30 00	30 00
do No. 11.....	Mar., 1868	Casper Bradley.....	1 do ...	30 00	30 00
do No. 12.....	Sept., 1863	Martin Nestor.....	1 do ...	30 00	30 00
do No. 13.....	do 1868	Alex. Winslow.....	1 do ...	30 00	30 00
do No. 14.....	do 1867	Henry Hair.....	1 do ...	30 00	30 00
do No. 15.....	do 1856	James Delaney.....	1 do ...	34 00	34 00
do No. 16.....	Mar., 1868	Robt. Gibson.....	1 do ...	30 00	30 00
do No. 17.....	April, 1862	Frank Weaver.....	1 do ...	30 00	30 00
do No. 18.....	Oct., 1855	John Armstrong.....	1 do ...	30 00	30 00
do No. 19.....	June, 1853	James Madill.....	1 do ...	30 00	30 00
do No. 20.....	July, 1862	Robt. Bradley.....	1 do ...	30 00	30 00
do No. 21.....	do 1856	James McAuley.....	1 do ...	30 00	30 00
do No. 22.....	Aug., 1854	Wm. Burley.....	1 do ...	30 00	30 00
do No. 23.....	Oct., 1854	Stephen Kane .....	1 do ...	30 00	30 00
Lock and bridge asst. No. 24...	Dec., 1863	Austin Moran .....	1 do ...	30 00	30 00
Lock assistant No. 25.....	April, 1866	Patrick Friel .....	1 do ...	30 00	30 00
Bridge tender, Lock No. 2.....	June, 1863	Charles Kearnes.....	1 do ...	26 00	26 00
do St Catharines.	Sept., 1859	Dennis Daley.....	1 do ...	26 00	26 00
do Keefer's.....	Oct., 1863	John McNamara.....	1 do ...	26 00	26 00
					904 00

## ACCOUNTS chargeable to Welland Canal—Maintenance.

Date.	DEPARTMENT OF PUBLIC WORKS.	\$ cts.	\$ cts.
1869.	To THOMAS SEYMOUR.		
July 30.....	To Printing 50 bills, tenders, repairs east pier, Port Dalhousie.....	2 50	
Aug. 5.....	Advertising tenders for Dalhousie pier, 2 insertions, 1st, at 8 cts.; 2nd, at 2 cts.; 37 lines.....	3 70	
do 23.....	Printing 50 bills, repairs, Dunnville dam, &c.....	2 50	
do 26.....	Advertising tenders for repairs at Dunnville, &c., 2 insertions, 1st, at 8 cts.; 2nd, at 2 cts.; 41 lines.....	4 10	
Oct. 6.....	Printing 500 $\frac{1}{2}$ copies summary estimates, ruled and endorsed.....	12 00	
do 18.....	Printing 100 full sheet bill heads, ruled and endorsed.....	5 00	
do 19.....	Printing 300 $\frac{1}{4}$ sheet bill headings, ruled and endorsed.....	4 50	
			34 30
	WELLAND "TELEGRAPH."		
Aug. 5.....	To Advertising east pier, Port Dalhousie— 75 lines, 1st time, at 8 cts.....	6 00	
	1st time repeated, at 2 cts.....	1 50	
do 26.....	Advertising works at Port Maitland— Dunnville dam, 56 lines, 1st.....	4 48	
	1 time repeated. ....	1 12	
			13 10
			47 40

PAY-LIST in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 1, during the month of November, 1869, to Office Establishment, Paymaster, Clerk, &c., chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Paymaster and clerk.....	Mar., 1842	Thomas Adams.....	1 month...	120 00	120 00
Attending office.....	April, 1852	Wm. Cook .....	1 do ...	12 00	12 00
					132 00



**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 2, during the month of November, 1869, to St. Catharines Establishment Harbor Master, Head Carpenter, Lock and Bridge Tenders, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor master, &c, Dalhousie....	Jan., 1858	J. P. Boomer.....	1 month...	93 75	93 75
Head carpenter .....	April, 1843	Richard Collier.....	1 do ...	75 00	75 00
Lock master and bridge, No. 1.....	Sept., 1853	James Woodall.....	1 do ...	34 00	34 00
do assistant do .....	July, 1856	Thos. Barrett.....	1 do ...	34 00	34 00
do master do .....	W. Canal	Wm. Chase.....	1 do ...	30 00	30 00
	Co.				
do assistant do .....	May, 1860	John Naster.....	1 do ...	30 00	30 00
do master do .....	Sept., 1845	Wm. Walker.....	1 do ...	30 00	30 00
do do do .....	W. Canal	Jas. Malpass.....	1 do ...	34 00	34 00
	Co.				
do do do .....	April, 1855	Frank Meagher.....	1 do ...	30 00	30 00
do do do .....	July, 1854	Michael Driscoll.....	1 do ...	30 00	30 00
do do do .....	Mar., 1865	James Bradley.....	1 do ...	30 00	30 00
do do do .....	April, 1855	Daniel McCarthy.....	1 do ...	30 00	30 00
do do do .....	Sept., 1853	Edward Boyle.....	1 do ...	30 00	30 00
do do do .....	do 1856	Bart. Clarke.....	1 do ...	30 00	30 00
do do do .....	April, 1853	John Reilly.....	1 do ...	30 00	30 00
do do do .....	May, 1855	James Cougan.....	1 do ...	30 00	30 00
do do do .....	Jan., 1864	Thos. Flynn.....	1 do ...	30 00	30 00
do do do .....	July, 1866	Geo. A. Darby.....	1 do ...	30 00	30 00
do do do .....	June, 1849	Michael Moran.....	1 do ...	34 00	34 00
do do do .....	Aug., 1845	Wm. Cochrane.....	1 do ...	30 00	30 00
do do do .....	do 1847	Wm. Carvers.....	1 do ...	30 00	30 00
do do do .....	June, 1853	John Strang.....	1 do ...	30 00	30 00
do do do .....	do 1847	James McCabe.....	1 do ...	30 00	30 00
do do do .....	do 1845	Wm. Williams.....	1 do ...	30 00	30 00
do do do .....	do 1854	Andrew Taggart.....	1 do ...	30 00	30 00
do do do .....	do 1863	Charles Philips.....	1 do ...	30 00	30 00
do do do .....	do 1854	Thos. Turner.....	1 do ...	30 00	30 00
do do do .....	Dec., 1863	Wm. Fegan.....	1 do ...	30 00	30 00
do do do .....	April, 1852	James Fluallan.....	1 do ...	30 00	30 00
Guard lock tender, Thorold.....	do 1861	Benj. McMahon.....	1 do ...	30 00	30 00
do assistant do .....	do 1861	Rufus Swazze.....	1 do ...	30 00	30 00
Bridge tender, Lock No. 2.....	Sept., 1856	Geo. Howe.....	1 do ...	26 00	26 00
do St. Catharines.....	April, 1850	John McCann.....	1 do ...	26 00	26 00
do Keefer's.....	Feb., 1863	Saml. Booth.....	1 do ...	26 00	26 00
					1,132 75

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No 3, during the month of November, 1869, to Port Robinson Establishment, Carpenter on Repairs, Regulating Water Lock and Bridge Tenders from Thorold to Junction, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
					\$ cts.
Carpenter on repairs, Thorold					75 00
Junction and Marshville.....	April, 1861	Thos. R. Secord.....	1 month...	75 00	75 00
Foreman and in charge of water at Allanburgh.....	W. C. Co.	Henry Higgins.....	1 do ...	30 00	30 00
Lock Master, Allanburgh .....	April, 1861	John Bruce.....	1 do ...	30 00	30 00
do do .....	Sept., 1865	Wm. Upper.....	1 do ...	30 00	30 00
Guard Lock Tender, Allanburgh	Aug., 1866	Daniel O'Leary.....	1 do ...	30 00	30 00
do .....	April, 1860	Aaron Higgins .....	1 do ...	30 00	30 00
do .....	July, 1851	Wm. Higgins.....	1 do ...	30 00	30 00
do .....	April, 1850	I. Radcliffe.....	1 do ...	30 00	30 00
Lock Tender, Port Robinson.....	Dec., 1862	James McCoppen.....	1 do ...	26 00	26 00
do Aqueduct .....	April, 1851	John Watson.....	1 do ...	26 00	26 00
Attending two bridges, Junction	May, 1856	George Hannah .....	1 do ...	30 00	30 00
do Assistant do .....	Aug., 1866	Charles Hannah.....	1 do ...	30 00	30 00
Bridge Tender, Hursts.....	April, 1845	John O'Neill .....	1 do ...	26 00	26 00
do Assistant .....	do 1853	Thomas Price .....	1 do ...	26 00	26 00
do Marlatts .....	Nov., 1854	John McDonald .....	1 do ...	26 00	26 00
do Assistant.....	Feb., 1864	John Gearon .....	1 do ...	26 00	26 00
do Allanburgh.....	April, 1866	James Waters.....	1 do ...	26 00	26 00
do Assistant .....	Sept., 1854	Wm. Leary.....	1 do ...	26 00	26 00
do Port Robinson .....	July, 1859	George Thompson.....	1 do ...	26 00	26 00
do Assistant.....	Aug., 1863	James Walsh.....	1 do ...	26 00	26 00
do Quaker.....	do 1865	Nelson Higgins.....	1 do ...	26 00	26 00
do Assistant.....	April, 1858	Bart. Brinnan .....	1 do ...	26 00	26 00
do Burgess.....	do 1849	Hugh Quinlan.....	1 do ...	26 00	26 00
do Assistant.....	Feb., 1866	Jas. Edmonds .....	1 do ...	26 00	26 00
do Aqueduct.....	Aug., 1868	Jas. Foster.....	1 do ...	26 00	26 00
do Assistant.....	do 1863	David Tuft. ....	1 do ...	26 00	26 00
					761 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 4, during the month of November, 1869, to Port Colborne Establishment, Harbor Master, &c., Carpenter, Regulating Water, Lock and Bridge Tenders from Junction to Colborne, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor master, &c., Colborne	Mar., 1858	Nicholas Higgins.....	1 month..	50 00	50 00
Lock and br. master do ...	Apr., 1849	John McGillivray.....	1 do ...	34 00	34 00
do do do ...	Aug., 1863	John Sweeney.....	1 do ...	34 00	34 00
do do do ...	May, 1856	John Hinchey.....	1 do ...	34 00	34 00
do do do ...	Apr., 1851	Patrick Fahey.....	1 do ...	34 00	34 00
Laborer on banks, &c.....	Aug., 1854	Michael Madden.....	25 1/2 days...	1 00	25 50
Attending ferry and scow....	May, 1863	Edward Hanley.....	1 month..	34 00	34 00
Bridge tender, Stone Bridge	June, 1869	Jas. Dickenson.....	1 do ...	26 00	26 00
do Assistant.....	Sept., 1854	Jeremiah Daley.....	1 do ...	26 00	26 00
					297 50

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 5, during the month of November, 1869, to Port Maitland Establishment, Foreman and in charge of Water Lock and Bridge Tender from Maitland to Dunnville, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman in charge of water at Dunnville.....	W. Canal Co. ....	Frank Ramsey.....	1 month..	50 00	50 00
Lock tender Dunnville, and checking lock passes.....	June, 1856	Robert Morrison.....	1 do ...	30 00	30 00
Lock tender, Port Maitland..	W. Canal Co.....	Thomas Connor.....	1 do ...	30 00	30 00
do Assistant.....	June, 1863	Patrick Cummings.....	1 do ...	26 00	26 00
Attending 2 bridges, Bridge Creek .....	Apr., 1866	George Harris.....	1 do ...	26 00	26 00
Laborer on banks, &c.....	June, 1851	Charles Thrush.....	28½ days...	1 00	28 50
do do .....	Nov., 1869	James Thrush.....	24½ do ...	1 00	24 50
do do .....	do ...	Edward Cooper.....	5½ do ...	1 00	5 50
Team hauling .....	do ...	John Rollis.....	7½ do ...	2 50	18 75
Laborer .....	do ...	Robert Morrison, jr.....	14½ do ...	1 00	14 50
					253 75

PAY-LIST in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 6, during the month of November, 1869, to Lock Laborers' Establishment, Lock and Bridge Assistants, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Lock and bridge assistant, No. 1...	Aug., 1864	Andrew Hamilton ....	1 month ...	34 00	34 00
do do	1... Nov., 1854	John Howe.....	1 do ...	34 00	34 00
do do	2... April, 1852	Walter Weaver.....	1 do ...	30 00	30 00
do do	2... Aug., 1854	James Howe.....	1 do ...	30 00	30 00
do do	3... April, 1854	Arthur Carroll .....	1 do ...	30 00	30 00
do do	4... do 1850	John Turnbull.....	1 do ...	34 00	34 00
do do	5... do 1862	Wm. Hare.....	1 do ...	30 00	30 00
do do	6... do 1854	Hugh Hagan .....	1 do ...	30 00	30 00
do do	7... do 1854	Robt. Boyle.....	1 do ...	30 00	30 00
do do	8... Aug., 1867	Horton Plumsted.....	1 do ...	30 00	30 00
do do	9... April, 1856	Arthur Bradley.....	1 do ...	30 00	30 00
do do	10... do 1867	Wm. Wilson.....	1 do ...	30 00	30 00
do do	11... Mar., 1868	Casper Bradley.....	1 do ...	30 00	30 00
do do	12... Sept. 1863	Martin Nestor .....	1 do ...	30 00	30 00
do do	13... do 1868	Alex. Winslow .....	1 do ...	30 00	30 00
do do	14... Oct., 1867	Henry Hair.....	1 do ...	30 00	30 00
do do	15... Sept., 1856	James Delaney.....	1 do ...	34 00	34 00
do do	16... Mar., 1868	Robt. Gibson.....	1 do ...	30 00	30 00
do do	17... April, 1862	Frank Weaver.....	1 do ...	30 00	30 00
do do	18... Oct., 1855	John Armstrong.....	1 do ...	30 00	30 00
do do	19... June, 1853	Jas. Madill.....	1 do ...	30 00	30 00
do do	20... July, 1862	Robt. Bradley.....	1 do ...	30 00	30 00
do do	21... do 1856	Jas. McAuley .....	1 do ...	30 00	30 00
do do	22... Aug., 1854	Wm. Burley.....	1 do ...	30 00	30 00
do do	23... Oct., 1854	Stephen Kane .....	1 do ...	30 00	30 00
do do	24... Dec., 1863	Austin Moran .....	1 do ...	30 00	30 00
do do	25... April, 1866	Patk. Friel.....	1 do ...	30 00	30 00
Bridge assistant, Lock No. 2 .....	June, 1863	Chas. Kearns.....	1 do ...	26 00	26 00
do St. Catharines.....	Sept., 1859	Dennis Daley.....	1 do ...	26 00	26 00
do Keefer's.....	Oct., 1863	Jno. McNamara .....	1 do ...	26 00	26 00
					904 00



**PAY LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 7, during the month of November, 1869, to Oils, Wood, &c., furnished, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Oils furnished .....	Nov., 1869	Wm. J. & J. McCalla. ....	.....	.....	86 45
Wood, &c .....	do 1869	Elkana Rogers.....	.....	.....	56 00
					142 45

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 1, during the month of December, 1869, to Office Establishment, Paymaster, Clerk, &c., chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Paymaster and Clerk.....	Mar., 1842	Thos. Adams.....	1 month...	120 00	120 00
Attending Office.....	April, 1852	M. Cooke .....	1 do ...	12 00	12 00
					132 00

PAY-LIST in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 2, during the month of December, 1869, to St. Catharines Establishment, Harbor Master, &c., Head Carpenter, Lock and Bridge Tenders, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor Master, &c., Dalhousie....	Jan., 1858	J. P. Boomer.....	1 month...	93 75	93 75
Head Carpenter.....	April, 1843	Richard Collier.....	1 do ...	75 00	75 00
Lock and Bridge Tender, No. 1...	Sept., 1853	Jas. Woodall.....	$\frac{1}{2}$ do ...	34 00	} 32 00
Regulating water.....	do 1853	do .....	do ...	30 00	
Lock Assistant.....No. 1...	July, 1856	Thos. Barrett.....	$\frac{1}{2}$ do ...	34 00	17 00
do Master..... do 2...	Welland				
Regulating water.....	Canal Co	Wm. Chace.....	$\frac{1}{2}$ do ...	30 00	} 30 00
Lock Assistant.....No. 2...	do	do .....	do ...	30 00	
Laborer.....	May, 1863	John Nestor.....	do ...	30 00	} 18 00
Lock Master.....No. 3...	do 1860	do .....	3 days.....	1 00	
do and Bridge Tender, do 4...	Sept., 1845	Wm. Walker.....	$\frac{1}{2}$ month...	30 00	15 00
	Welland				
Laborer.....	Canal Co	Jas. Malpass.....	$\frac{1}{2}$ do ...	34 00	} 18 00
Lock Master.....No. 5...	do	do .....	1 day.....	1 00	
do .....	April, 1853	Frank Meigher.....	month...	30 00	15 00
do .....	do 6...	Michael Driscoll.....	do ...	30 00	15 00
do .....	do 7...	Jas. Bradley.....	do ...	30 00	15 00
do .....	do 8...	Daniel McCarthy.....	do ...	30 00	15 00
do .....	do 9...	Edward Boyle.....	do ...	30 00	15 00
do .....	do 10...	Bart. Clarke.....	do ...	30 00	15 00
do .....	do 11...	John Reilly.....	do ...	30 00	15 00
do .....	do 12...	Jas. Cogan.....	do ...	30 00	15 00
do .....	do 13...	Thos. Flynn.....	do ...	30 00	15 00
do .....	do 14...	Geo. A. Darby.....	do ...	30 00	15 00
Lock and Bridge Tender, do 15...	June, 1849	Michael Moran.....	do ...	34 00	17 00
Lock Master..... do 16...	Aug., 1845	Wm. Cochrane .....	do ...	30 00	15 00
do .....	do 17...	Wm. Cavers.....	do ...	30 00	15 00
do .....	do 18...	John Strong.....	do ...	30 00	15 00
do .....	do 19...	Jas. McCabe.....	do ...	30 00	15 00
do .....	do 20...	Wm. Williams.....	do ...	30 00	15 00
do .....	do 21...	Andrew Taggart.....	do ...	30 00	15 00
do .....	do 22...	Jas. Philips.....	do ...	30 00	15 00
do .....	do 23...	Thos. Turner.....	do ...	30 00	15 00
Lock and Bridge Tender, do 24...	Dec., 1863	Wm. Fagan.....	do ...	30 00	15 00
Lock Master..... do 25...	April, 1852	Jas. Flewellan .....	do ...	30 00	} 30 00
Regulating water hydraulic race..	do 1852	do .....	do ...	30 00	
Guard Lock Tender, Thorold.....	do 1861	Ben. McMahon.....	do ...	30 00	15 00
do Assistant do .....	do 1861	Rufus Swazze.....	do ...	30 00	15 00
Bridge Tender, Lock No. 2.....	Sept., 1856	George Howe.....	do ...	26 00	} 14 50
Labor.....	do 1856	do .....	$1\frac{1}{2}$ days.....	1 00	
Bridge Tender, St. Catharines.....	April, 1850	John McCann.....	month...	26 00	13 00
do Keefer's.....	Feb., 1863	Samuel Boothe.....	do ...	26 00	13 00
					701 25

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 3, during the month of December, 1869, to Port Robinson Establishment, Carpenter on Repairs, Regulating Water, Lock and Bridge Tenders, from Thorold to Junction, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter on Repairs, Thorold Junction and Marshville.....	April, 1861	Thos. R. Secord.....	1 month...	75 00	75 00
Foreman and in charge of water at Allanburgh.....	Welland Canal Co	Henry Higgins.....	1 do ...	30 00	30 00
Lock Foreman, Allanburgh.....	April, 1861	Jno Bruce.....	$\frac{1}{2}$ do ...	30 00	15 00
Assistant Lock Foreman, Allanburgh.....	Sept., 1865	Wm. Upper.....	$\frac{1}{2}$ do ...	30 00	15 00
Guard Lock Foreman, Allanburgh	Aug., 1866	Daniel O'Leary.....	$\frac{1}{2}$ do ...	30 00	15 00
Assistant Guard Lock Foreman, Allanburgh.....	April, 1860	Aaron Higgins.....	do ...	30 00	15 00
do do .....	July, 1861	Wm. Higgins.....	do ...	30 00	15 00
do do .....	April, 1860	Isaac Radcliffe.....	do ...	30 00	15 00
Lock Foreman, Port Robinson.....	July, 1861	Jas McCoppen.....	do ...	26 00	13 00
do Aqueduct .....	April, 1861	John Watson.....	do ...	26 00	13 00
Attending two bridges, Junction.	May, 1866	Geo. Hannah.....	do ...	30 00	15 00
Assistant Attendant.....	Aug., 1866	Chas Hannah.....	do ...	30 00	15 00
Bridge Tender, Hursts.....	April, 1845	Jno. O'Neil.....	do ...	26 00	13 00
do Assistant.....	do 1863	Thos. Price.....	do ...	26 00	13 00
do Marlatts .....	Nov., 1864	John McDonald.....	do ...	26 00	13 00
do Assistant.....	Feb., 1864	John Gearon.....	do ...	26 00	13 00
do Allanburgh.....	April, 1866	James Waters.....	do ...	26 00	13 00
do Assistant.....	Sept., 1864	Wm. Leary.....	do ...	26 00	13 00
do Port Robinson.....	July, 1869	George Thomson.....	do ...	26 00	13 00
do Assistant.....	April, 1863	James Walsh.....	do ...	26 00	13 00
do Quaker.....	do 1865	Nelson Higgins.....	do ...	26 00	13 00
do Assistant.....	do 1865	Bart. Brennan.....	do ...	26 00	13 00
do Burgars.....	do 1849	Hugh Quinlin.....	do ...	26 00	13 00
do Assistant.....	Feb., 1866	Jas. Edmunds.....	do ...	26 00	13 00
do Aqueduct .....	Aug., 1863	Jas. Foster.....	do ...	26 00	13 00
do Assistant.....	do 1863	David Tufts.....	do ...	26 00	13 00
					433 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 4, during the month of December, 1869, to Port Colborne Establishment, Harbor Master, Overseer of Works, Regulating Water, Lock and Bridge Tenders, from Junction to Colborne, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbormaster, &c., Colborne	Apr., 1855	Nicholas Higgins .....	1 month...	50 00	50 00
Lock and br. master do }	do 1849	J. McGillivray .....	$\frac{1}{2}$ do ...	34 00 }	32 00 }
Regulating water.....			do ...	30 00 }	
Lock and br. tender Colborne	Aug., 1863	John Sweeney.....	do ...	34 00	17 00
do do do ...	May, 1866	John Hinchey.....	do ...	34 00	17 00
do do do ...	Apr., 1851	Patrick Fahey.....	do ...	34 00	17 00
Laborer on banks, &c.....	Aug., 1854	Michael Madden.....	9 days.....	1 00	9 00
Attending ferry scow.....	do 1863	Edward Hanly .....	1 month...	34 00	34 00
Bridge tender, stone bridge...	June, 1869	Jos. Dickenson.....	do ...	26 00	13 00
do asst. do ...	Sept., 1854	Jeremiah Daley.....	$\frac{1}{2}$ do ...	26 00	13 00
					202 00



**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 5, during the month of December, 1869, to Port Maitland Establishment, Foreman, Regulating Water and Bridge Tender, from Port Maitland to Dunnville, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman in charge of water at Dunnville.....	W. C. Co.	Frank Ramsay .....	1 month...	50 00	50 00
Guard lock foreman and checking lock passes.....	June, 1856	Robt. Morrison .....	{ 1/2 do ... 10 days....	{ 30 00 1 00	{ 25 00
Laborer .....	W. C. Co.	Thos. Connor .....	{ 1/2 month... 1 day.....	{ 30 00 1 00	{ 16 00
Lock tender, Port Maitland	Apr., 1861	Patrick Cumming.....	{ 1/2 month... 1 day.....	{ 26 00 1 00	{ 14 00
Laborer.....	do 1866	George Harris.....	{ 1/2 month... 1 day.....	{ 26 00 1 00	{ 14 00
Lock tender, asst., Port Maitland.....	do 1866	James Thrush.....	27 days....	1 00	27 00
Attending 2 bridges at Br. Creek.....	Dec., 1869	John Nichols.....	7 do .....	1 00	7 00
Laborer on banks.....	do ...	John Paterson.....	1 do .....	2 50	2 50
do .....	do ...		25 do .....	1 50	37 50
Team hauling .....					
Carpenter .....					
					193 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 6, during the month of December, 1869, to Lock Laborers' Establishment, Lock and Bridge Assistants, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Lock and bridge assistant, No. 1...	Aug., 1864	Andrew Hamilton.....	1 month..	34 00	17 00
do do	1... Nov., 1854	John Howe.....	do ...	34 00	17 00
do do	2... April, 1852	{ Walter Weaver..... Labor.....	{ do ... 1 day .....	{ 30 00 1 00	{ 16 00
do do	2... Aug., 1854	{ James Howe .....	{ 1/2 month..	{ 30 00	{ 18 00
do do	3... April, 1854	{ Labor..... Arthur Carl.....	{ 3 days ... 1 month..	{ 1 00 30 00	{ 16 00
do do	4... do 1850	Jno. Turnbull.....	1 day .....	1 00	
do do	5... do 1862	Wm. Hare .....	1 month..	34 00	17 00
do do	6... do 1852	Hugh Hughen .....	do ...	30 00	15 00
do do	7... do 1852	Robt. Boyle .....	do ...	30 00	15 00
do do	8... Aug., 1867	Horton Plumsted .....	do ...	30 00	15 00
do do	9... April, 1856	Arthur Bradley.....	do ...	30 00	15 00
do do	10... do 1867	Wm. Wilson .....	do ...	30 00	15 00
do do	11... Mch., 1868	Casper Bradley .....	do ...	30 00	15 00
do do	12... Sept., 1863	Martin Nestor .....	do ...	30 00	15 00
do do	13... do 1868	Alex'r Winslow.....	do ...	30 00	15 00
do do	14... do 1867	Henry Hair .....	do ...	30 00	15 00
do do	15... do 1856	Jas. Delaney .....	do ...	34 00	17 00
do do	16... Mch., 1868	Robt. Gibson .....	do ...	30 00	15 00
do do	17... April, 1862	Frank Weaver .....	do ...	30 00	15 00
do do	18... Oct., 1855	John Armstrong .....	do ...	30 00	15 00
do do	19... June, 1853	Jas. Madill.....	do ...	30 00	15 00
do do	20... July, 1862	Robt. Bradley .....	do ...	30 00	15 00
do do	21... do 1856	Jas. McAuley .....	do ...	30 00	15 00
do do	22... Aug., 1854	Wm. Burley .....	do ...	30 00	15 00
do do	23... Oct., 1854	Stephen Kane.....	do ...	30 00	15 00

## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
Lock and bridge assistant, No. 24...	Dec., 1863	Austin Moran .....	$\frac{1}{2}$ do ...	30 00	15 00
do do 25...	April, 1866	Pat'k Friel .....	$\frac{1}{2}$ do ...	30 00	15 00
Bridge tender, Lock No. 2.....	June, 1863	{ Chas. Kearns .....	$\frac{1}{2}$ do ...	26 00	} 14 50
do St. Catharines.....	Sept., 1859	{ Labor.....	1 $\frac{1}{2}$ days ...	1 00	
do do Keefer's.....	Oct., 1863	Dennis Daley .....	$\frac{1}{2}$ month..	26 00	
		Jno. McNamara .....	$\frac{1}{2}$ do ...	26 00	13 00
					458 50

## ACCOUNTS chargeable to Welland Canal, Maintenance.

Date.		\$	cts.	\$	cts.
1869.	ST. CATHARINE'S POST OFFICE				
Sept. 30...	To 6, 10, 41, 44, 25, 38, 15, 10, 87, 24.....		3 00		
do 30...	21, 10, 6, 38, 31, 40, 30, 69, 6, 31.....		2 28		
do 30...	25, 99, 72, 67, 18, 21, 50, 66, 23.....		4 41		
do 30...	10, 6, 12, 26, 16, 18, 85, 46, 76, 35.....		3 30		
do 30...	19, 45, 10, 6, \$3; 35, 12, 73, 30.....		5 30		
do 30...	40, 53, 6, \$3; 10, 18, 38, 61 29.....		5 55		
do 30...	21, 44, 6, 10, 38, 12, 40, 37, 6, 12.....		2 26		
do 30...	26, 56, 6, 52, 10, 6, 10.....		1 66		
do 30...	Box to 31st December.....		0 50		
	W. S. COPELAND.				28 26
Oct. 1...	To 2 yards tracing cotton, \$1.50; 3 doz. rubber bands, 25 cts.....		1 75		
do 1...	1 box pens, \$1.50; 3 doz. rubber bands, \$1.50.....		3 00		
Nov. 4...	100 foolscap envelopes, \$1 (12th); $\frac{1}{2}$ ream note paper, \$1.50..		2 50		
do 12...	1 box envelopes, \$1.50 (16th); 1 bottle red ink, 50 cts.....		2 00		
do 16...	1 doz. pencils, 75 cts. (Dec. 11); blank book, \$1.....		1 75		
Dec. 11...	1 diary, \$1.50 (27th); 2 almanacs, 50 cts.....		2 00		
do 29...	1 diary, \$1.50; 1 bottle ink, 50 cts.....		2 00		
do 29...	1 box pens.....		1 50		
do 29...	Daily <i>Globe</i> , 1 year, from January, 1870.....		5 00		
	MONTREAL TELEGRAPH CO.				21 50
July 6}	To Messages to and from Dunnville, 50 cts. ....		2 05		
do 21}	Toronto, 29 cts. (22nd); to Ottawa, \$1.26.....				
do 26...	Colborne, 31 cts. (29th); to Thorold, 25 cts. (Aug. 5); to Ottawa, 90 cts.....		1 46		
Aug. 9...	Port Robinson, 27 cts. (Sept. 8); to Dunnville, 28 cts.....		0 55		
Sept. 9...	Colborne, 25 cts. (10th); to Port Robinson, 32 cts.; Cleve- land, 69 cts.....		1 26		
do 15...	Port Colborne, 27 cts.; to Port Robinson, 57 cts.....		0 84		
do 16}	Dunnville, 34 cts. (18th); from Port Dalhousie, 15—15.....		89 00		
do 27}	Dunnville, 25 cts.....				
do 27...	Port Dalhousie, 15 cts. (Oct. 11); to Port Dalhousie, 15 cts..		30 00		
Oct. 13...	Port Colborne, 28 cts. (Nov. 18); from Dunnville, 30 cts.; to Ottawa, 54 cts.....		1 12		
Nov. 23}	Newbury, 35 cts.; to and from Port Robinson, 58 cts.....		1 22		
Dec. 7}	Port Robinson, 29 cts.....				
do 11}	Thorold, 15 cts. (13th); to Ottawa, 46 cts.....		1 40		
do 22}	Dunnville, 25 cts. (27th), from Dunnville, 54 cts.....				
	NORRIS & NELSON.				11 09
Oct. 27...	To 7 $\frac{1}{2}$ tons soft coal, at \$7.....				50 75
					111 60

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 2, during the month of January, 1870, to St. Catharine's Establishment, Harbor Master, Head Carpenter, Overseer of Works, Lock and Bridge Tenders, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
Harbor Master and Assistant Collector.....	Jan., 1858	J. P. Boomer.....	1 month...	\$ cts 93 75	\$ cts. 93 75
Overseer rafts, allowance for travelling expenses.....	April, 1843	Richard Collier.....	1 year.....	100 00	} 175 00
do horse hire to make measurements during last year.....	do ...	do .....	1 month...	75 00	
Lock Master regulating water, No. 8.....	Sept., 1853	James Woodall.....	1 do ...	30 00	30 00
Lock Assistant, No. 8.....	July, 1856	Thomas Barrett.....			
Lock Master regulating water, No. 2.....	Welland Canal Co..	William Chace.....	1 month...	30 00	} 60 00
Lock Master, allowance for checking Lock Passes last year.....	do ..	do .....	1 year.....	30 00	
Lock Assistant, No. 2.....	May, 1860	John Nestor, labor.....	6½ days.....	1 00	6 50
Lock Master, No. 3, allowance for making measurements of rafts passing through Canal and checking lock passes.....	Sept., 1845	William Walker.....	1 year.....	50 00	50 00
Lock and Bridge Master, No. 4.....	Welland Canal Co..	James Malpass, labor.....	1 day.....	1 00	1 00
do do No. 5...	April, 1845	Frank Meagher.....			
do do No. 6...	July, 1854	Michael Driscoll.....			
do do No. 7...	May, 1865	James Bradley.....			
do do No. 8...	July, 1854	Daniel McCarthy.....			
do do No. 9...	Sept., 1853	Edward Boyle.....			
do do No. 10...	do 1856	Bart. Clarke.....			
Lock Master, No. 11, regulating water, hydraulic race, from Thorold to St. Catharines.....	April, 1853	John Rielly.....	1 year.....	Per year...	20 00
Lock Master, No. 12.....	May, 1855	James Coughlin.....			
do No. 13.....	Jan., 1864	Thomas Flynn.....			
do No. 14.....	July, 1866	George A. Darby.....			
do and Bridge, No. 15...	June, 1849	Michael Moran.....			
do No. 16.....	Aug., 1845	William Cochrane.....			
do No. 17.....	do 1847	Wm. Cavers.....			
do No. 18.....	June, 1853	John Strong.....			
do No. 19.....	do 1847	James McCabe.....			
do No. 20.....	do 1845	Wm. Williams.....			
do No. 21.....	do 1854	Andrew Taggart.....			
do No. 22.....	Sept., 1857	James Philips.....			
do No. 23.....	June, 1854	Thos. Turner.....			
do and Bridge, No. 24...	Dec., 1863	Wm. Fegan.....			
do No. 25, regulating water, hydraulic race, from Thorold to St. Catharines.....	April, 1853	Jas. Flewallen.....	1 month...	Per month	30 00
Guard Lock Tender, Thorold.....	do 1861	Ben McMahon.....			
do Assistant.....	do 1861	Rufus Swazie.....			
Bridge Tender, Lock No. 2.....	Sept., 1856	George Howe, labor.....	3 days.....	1 00	3 00
do St. Catharines...	April, 1850	John McCann.....			
do Keefer's.....	Feb., 1863	Samuel Booth.....			
					469 25



## ACCOUNTS chargeable to Welland Canal, January, 1870, Maintenance.

Date.	Nature of Work.	\$ cts.	\$ cts.
1869.	To Wm. J. & J. McCalla—		
Dec. 1.....	2 gals. lubricating oil, at 75 cts.....	1 50	
do 1.....	11 gals. coal oil, at 40 cts.....	4 40	
do 1.....	6 boxes matches, at 20 cts.....	1 20	
			7 10

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 1, during the month of February, 1870, to Office establishment, Paymaster, Clerk, &c., chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Paymaster and clerk .....	Mar., 1842	Thomas Adams .....	1 month...	120 00	120 00
Attending office.....	Aug., 1852	M. Cooke.....	1 do ...	12 00	12 00
					132 00

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 3, during the month of February, 1870, to Port Robinson Establishment, Carpenter on Repairs, regulating Water Lock, and Bridge Tender from Thorold to Junction, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter on repairs, Thorold Junction and Marshville.....	April, 1861	Thos. R. Secord .....	1 month..	75 00	75 00
Foreman in charge of water at Allanburgh.....	W. C. Co. April, 1861	Henry Higgins .....	1 do ...	30 00	30 00
Lockmaster, Allanburgh.....	Sept., 1856	John Bruce.....			
do do .....	Aug., 1866	Wm. Upper (labor)...	11 days ...	1 00	11 00
Guard lock foreman, Allanburgh.	Aug., 1866	Daniel O'Leary.....			
do tender do .....	April, 1850	Aaron Higgins.....			
do do do .....	July, 1851	Wm. Higgins (labor)...	24 days ...	1 00	24 00
do do do .....	April, 1850	J. C. Radcliffe.....			
Lock tender, Port Robinson.....	Dec., 1862	Jas. McCoppen(labor)	4 days ...	1 00	4 00
do Aqueduct.....	April, 1851	John Watson.....			
Attending 2 bridges, Junction....	May, 1856	Geo. Hannah.....			
do do do assistant.	Aug., 1866	Charles Hannah.....			
Bridge tender, Hurst.....	April, 1845	John O'Neill .....			
do do assistant....	do 1853	Thomas Price.....			
do Marlatts .....	Nov., 1854	John McDonald.....			
do do assistant..	Feb., 1864	John Gearon .....			
do Allanburgh.....	April, 1866	Jas. Waters (labor)...	24 days ...	1 00	24 00
do do assistant.	Sept., 1854	Wm. Leary .....			
do Port Robinson.....	July, 1859	George Thomson.....			
do do assistant.	Aug., 1863	Jas. Walsh.....			
do Quaker.....	do 1865	Nelson Higgins.....			
do do assistant....	April, 1855	Bart. Brennan.....			
do Burgers.....	do 1849	Hugh Quinlin.....			
do do assistant..	Feb., 1866	James Edmonds. ....			
do Aqueduct.....	Aug., 1868	James Foster.....			
do do assistant.	do 1863	David Tuft.....			
					168 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 4 during the month of February, 1870, to Port Colborne Establishment, Harbor Master, &c., Overseer of Works Reg. Water, Lock and Bridge Tender, from Junction to Colborne, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor master, &c., Colborne....	April, 1858	Nicholas Higgins.....	1 month...	50 00	50 00
Lock master, reg. water.....	do 1849	John McGillvray .....	1 do ...	30 00	30 00
do tender do .....	Aug., 1853	John Sweeney.....	.....	.....	.....
do do do .....	May, 1856	John Hinchey .....	.....	.....	.....
do do do .....	April, 1851	Patrick Fahey.....	.....	.....	.....
Laborer on banks, &c.....	Aug., 1854	Michael Madden .....	.....	.....	.....
Attending ferry scow.....	do 1863	Edward Hanley.....	.....	.....	.....
Bridge tender, stone bridge.....	June, 1869	Jas. Dickenson .....	.....	.....	.....
do assistant .....	Sept., 1854	Jeremiah Daley .....	.....	.....	.....
					80 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 5, during the month of February, 1870, to Port Maitland Establishment, Foreman and in charge of Water Lock and Bridge Tender, from Maitland to Dunnville, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman and in charge of water at Dunnville .....	W. Cnl. Co	Frank Ramsey.....	1 month...	50 00	50 00
Guard lock tender, Dunnville.....	June, 1856	Robt. Morrison.....	17 days....	1 00	17 00
Lock tender, Port Maitland.....	W. Cnl Co	Thomas Connor .....	.....	.....	.....
do assistant.....	April, 1866	Patrick Cannings .....	.....	.....	.....
Attending 2 bridges, Bridge Creek	do 1866	George Harris.....	.....	.....	.....
Laborer on banks, &c. ....	June, 1851	Charles Thrush.....	27 days....	1 00	27 00
Foreman.....	Feb., 1870	John Patterson.....	20 do ....	1 50	30 00
					124 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 6, during the month of February, 1870, to Lock Laborers' Establishment, Lock and Bridge Assistants from Dalhousie to Thorold, Chargeable to Maintenance.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
					\$ cts.
Lock master's assistant, No. 1.....	Aug., 1864	Andrew Hamilton .....			
do do No. 1.....	Nov., 1854	John Howe.....	14½ days...	\$1 per day	14 50
do do No. 2.....	April, 1852	Walter Weaver.....	19 do ...	do ...	19 00
do do No. 2.....	Aug., 1854	James Howe .....	18 do ...	do ...	18 00
do do No. 3.....	April, 1854	Arthur Carl .....			
Lock and bridge assistant, No. 4...	do	John Turnbull .....			
do do No. 5...	do	Wm. Hare.....			
do do No. 6...	do	Hugh Hagen .....	1½ days...	\$1 per day	1 50
do do No. 7...	do	Robert Boyle.....	17½ do ...	do ...	17 25
do do No. 8...	Aug., 1867	Horton Plumsted.....			
do do No. 9...	April, 1856	Arthur Bradley.....			
do do No. 10...	do	William Wilson.....			
do do No. 11...	March, 1868	Casper Bradley.....			
do do No. 12...	Sept., 1863	Martin Nestor.....	14 days...	\$1 per day	14 00
do do No. 13...	do	Alex. Winslow .....	14½ do ...	do ...	14 75
do do No. 14...	Oct., 1867	Henry Hair .....	21 do ...	do ...	21 00
do do No. 15...	Sept., 1856	James Delaney .....			
do do No. 16...	March, 1868	Robert Gibson .....			
do do No. 17...	April, 1862	Frank Weaver.....			
do do No. 18...	Oct., 1855	John Armstrong.....			
do do No. 19...	June, 1853	Jas. Madill.....			
do do No. 20...	July, 1862	Robert Bradley.....			
do do No. 21...	do	James McAuley .....			
do do No. 22...	Aug., 1854	Wm. Burley.....			
do do No. 23...	Oct., 1854	Stephen Kane.....			
do do No. 24...	Dec., 1863	Austin Moran .....			
do do No. 25...	April, 1866	Patrick Friel .....			
Bridge tender, lock No. 2.....	June, 1863	Chas. Kearnes.....	16½ days...	\$1 per day	16 75
do St. Catharines.....	Sept., 1859	Dennis Daley .....			
do Keefer's.....	Oct., 1863	John Macnamara .....			
					154 75

**ACCOUNTS** chargeable to Welland Canal, Maintenance, February, 1870.

Date.		\$ cts.	\$ cts.
1869.	ST. CATHARINES AND WELLAND CANAL GAS CO.		
Dec. 15.....	To Supply of gas to Welland Canal since 15th Aug., as per contract.....	2,756 00	
	Rental of meter left in Canal.....	100 00	
			2,856 00



### ACCOUNTS chargeable to Welland Canal, Maintenance, March, 1870.

Date.		\$ cts.	\$ cts.
1869.	JAMES SEYMOUR.		
Dec. 14.....	To Printing 100 copies Returns of Accounts, ruled and endorsed one-half .....	4 00	
do 14.....	Printing 300 copies Returns of Contract.....	9 50	
1870.			
Mar. 7.....	3 books for messages, \$2 each.....	6 00	
do 7.....	200 Summary Pay-lists, ruled and endorsed.....	8 00	
do 15.....	100 Extension do do .....	4 00	
do 15.....	200 Pay-lists, in duplicate do one-half .....	8 00	
	WM. L. COPELAND & Co.		39 50
Jan. 26.....	To 1 box pens, \$1.50; Feb. 11, foolscap, 50c.....	2 00	
Feb. 10.....	Red ink, 38c.; Feb. 14, 1 bottle, 25c.....	0 63	
do 26.....	1 ream note, \$2.50; 500 white envelopes, \$1.50 .....	4 00	
Mar. 2.....	Elastic bands.....	0 25	
	ST. CATHARINES POST OFFICE.		6 88
1869.			
Dec. 30.....	To 3, 6, 10, 22, 83, 16, 76, 35, 28.....	2 79	
	37, 10, 40, 21, 30, 17, 21, 10, 34, 17, 10, 6.....	2 53	
	3, 56, 31, 80, 30, 41, 50, 2, 4, 6, 14, 6, 10.....	3 33	
	3, 5, 84, 20, 4, 17, 2, 51, 14, 16, 21, 10.....	2 67	
	9, 6, 3, 32, 14, 34, 50, 3, 6, 9, 11, 6, 9.....	1 92	
	6, 21, 35, 10, 40, 20, 6, 3, 40, 11, 21, 6.....	2 19	
	10, 9, 27, 35, 6, 3, 40, 3, 6, 9, 14, 3, 6.....	1 71	
	6, 3, 6, 9, 3, 6, 3, 9, 30, 6, 9, 3, 30, 6, 10.....	1 39	
	Box, to 31st March.....	0 50	
			19 03
	Total.....		65 41

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 1, during the month of April, 1870, to Office Establishment, Paymaster, Clerk, &c., chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Paymaster and Clerk.....	Mar., 1842	Thomas Adams.....	1 month...	120 00	120 00
Attending Office.....	Aug., 1852	M. Cook.....	1 do ...	12 00	12 00
					132 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 2, during the month of April, 1870, to St. Catharines Establishment, Harbor Master, Head Carpenter, Overseer of Works, Lock and Bridge Tenders, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor Master, &c., Dalhousie....	Jan., 1858	J. P. Boomer.....	1 month...	93 75	93 75
Head Carpenter.....	April, 1843	Richard Collier.....	1 do ...	75 00	75 00
Regulating water.....	Sept., 1853	James Woodall.....	$\frac{1}{2}$ do ...	30 00	} 32 00
Lock and Bridge Master, No. 1...	do 1853	do .....	$\frac{1}{2}$ do ...	34 00	
do Assistant.....	do 1...	July, 1856	Thomas Barrett.....	1 00	25 00
do Master.....	do 2...	Welland Canal Co	Wm. Chace.....	1 month...	30 00
do Assistant.....	do 2...	May, 1860	John Nestor.....	26 $\frac{1}{2}$ days...	1 00
do Master.....	do 3...	Sept., 1845	William Walker.....	12 days...	1 00
do and Bridge Tender	do 4...	Welland Canal Co	James Malpass.....	27 do ...	1 00
Lock Master .....	do 5...	April, 1845	Frank Meagher.....	27 do ...	1 00
do .....	do 6...	July, 1854	Michael Driscoll.....	21 do ...	1 00
do .....	do 7...	Sept., 1853	James Bradley.....	27 do ...	1 00
do .....	do 8...	July, 1854	Daniel McCarthy....	27 do ...	1 00
do .....	do 9...	Sept., 1853	Edward Boyle.....	27 do ...	1 00
do .....	do 10...	do 1856	Bart. Clarke.....	27 do ...	1 00
do .....	do 11...	April, 1853	John Reilly.....	25 do ...	1 00
do .....	do 12...	May, 1855	Jas Conger.....	26 $\frac{3}{4}$ do ...	1 00
do .....	do 13...	Jan., 1864	Thomas Flynn.....	25 do ...	1 00
do .....	do 14...	July, 1866	Geo. A. Darley.....	16 do ...	1 00
Lock and Bridge Master	do 15...	Jan., 1849	Michael Moran.....	27 do ...	1 00
Lock Master .....	do 16...	Aug., 1845	Wm. Cochrane.....	26 do ...	1 00
do .....	do 17...	do 1847	Wm. Cavers.....	27 do ...	1 00
do .....	do 18...	June, 1853	John Strong.....	27 do ...	1 00
do .....	do 19...	do 1847	Jas McCabe.....	13 do ...	1 00
do .....	do 20...	do 1845	Wm. Williams.....	27 do ...	1 00
do .....	do 21...	do 1854	Andrew Taggart.....	27 do ...	1 00
do .....	do 22...	do 1863	Jas. Philips.....	27 do ...	1 00
do .....	do 23...	do 1854	Thos. Turner.....	24 do ...	1 00
Lock and Bridge Master	do 24...	Dec., 1863	Wm. Fegan.....	25 $\frac{1}{2}$ do ...	1 00
Lock Master .....	do 25...	do 1854	Jas. Flewellen.....	1 month...	30 00
Guard Lock Tender, Thorold.....	April, 1861	Ben. McMahon.....	27 days ...	1 00	27 00
do Assistant.....	do 1861	Rufus Swazzie.....	13 do ...	1 00	13 00
Bridge Tender, Lock No. 2.....	Sept., 1856	Geo. Howe.....	26 do ...	1 00	26 00
do St. Catharines.....	April, 1850	John McCann.....	10 do ...	1 00	10 00
do Keefer's.....	Feb., 1863	Samuel Boothe.....	26 do ...	1 00	26 00
					952 50

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 3, during the month of April, 1870, to Port Robinson Establishment, Carpenters on Repairs, Regulating Water Lock and Bridge Tenders, from Thorold to Junction, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
					\$ cts.
Carpenter on repairs, Thorold Junction and Marshville....	Apr., 1861	Thos. R. Secord.....	1 month..	75 00	75 00
Foreman in charge of water at Allanburgh.....	W. Canal Co.....	Henry Higgins.....	1 do ..	30 00	30 00
Lock Tender, Allanburgh.....	Apr., 1861	John Bruce.....	11 days...	1 00	11 00
do Asst. do .....	Sept., 1865	William Upper.....	11 do ...	1 00	11 00
Gd. Lock Tender do .....	Aug., 1866	Daniel O'Leary.....	16 do ...	1 00	16 00
do Asst. do .....	Apr., 1850	Aaron Higgins.....	23 do ...	1 00	23 00
do do .....	July, 1851	William Higgins.....	26 do ...	1 00	26 00
do do .....	Apr., 1850	I. Radcliffe.....	21 do ...	1 00	21 00
Lock Tender, Port Robinson.	July, 1861	Jas. McCoppen.....	14 do ...	1 00	14 00
do Aqueduct.....	Apr., 1851	John Watson.....	10 do ...	1 00	10 00
Attending 2 Brs. Junction....	May, 1856	George Hannah.....	11 do ...	1 00	11 00
do do Asst. do ....	Aug., 1866	Chas. Hannah.....	11 do ...	1 00	11 00
Bd. Tender, Hursts.....	Apr., 1845	John O'Neill.....	13 do ...	1 00	13 00
do Asst., Hursts.....	do 1853	Thomas Price.....	13½ do ...	1 00	13 50
do Marlatts.....	Nov., 1854	John McDonald.....	10 do ...	1 00	10 00
do Asst., Marlatts.....	Feb., 1864	John Gearon.....	11 do ...	1 00	11 00
do Allanburgh.....	Apr., 1866	James Waters.....	25½ do ...	1 00	25 50
do Asst., do .....	Sept., 1854	William O'Leary.....	14 do ...	1 00	14 00
do Port Robinson....	July, 1859	George Thomson.....	23½ do ...	1 00	23 50
do Asst., do .....	Apr., 1863	James Welch.....	25 do ...	1 00	25 00
do Quaker.....	do 1865	Nelson Higgins.....	21½ do ...	1 00	21 50
do Asst., Quaker....	do 1855	Bart. Brennan.....	10 do ...	1 00	10 00
do Burgers.....	do 1849	Hugh Quinlin.....	10 do ...	1 00	10 00
do Asst., Burgers....	Feb., 1866	James Edmonds.....	10 do ...	1 00	10 00
do Aqueduct.....	Aug., 1868	James Foster.....	10 do ...	1 00	10 00
do Asst., Aqueduct. do	1863	David Tuft.....	10 do ...	1 00	10 00
					466 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 4, during the month of April, 1870, to Port Colborne Establishment, Harbor Master, &c., Overseer of Works Reg. Water, Lock and Bridge Tenders, from Junction to Colborne, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts	\$ cts.
Harbor master, &c., Colborne....	April, 1855	Nicholas Higgins.....	1 month..	50 00	50 00
Lock and br. master do .....	do 1849	John McGillivray... {	½ do ...	30 00	} 32 00
do do .....	Aug., 1863	John Sweeney.....	½ do ...	34 00	
do do .....	May, 1856	John Hinchey.....	22 days...	1 00	22 00
do do .....	April, 1851	Patrick Fahey.....	26 do ...	1 00	26 00
Laborer on banks, &c.....	Aug., 1854	Michael Madden.....	22 do ...	1 00	22 00
Attending ferry scow .....	do 1863	Edward Hanly.....	21 do ...	1 00	21 00
Bridge tender, stone bridge.....	do 1863	Edward Hanly.....	25 do ...	1 00	25 00
do assistant .....	June, 1869	Jos. Dickenson.....	10 do ...	1 00	10 00
	Sept., 1854	Jeremiah Daley.....	21 do ...	1 00	21 00
					229 00



**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 5, during the month of April, 1870, to Port Maitland Establishment, Foreman and in charge of Water, Lock and Bridge, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman and in charge of water at Dunnville .....	W. Cnl.Co	Frank Ramsey.....	1 month...	50 00	50 00
Guard lock tender, Dunnville, and checking lock passes.....	June, 1856	Robt. Morrison .....	29 days....	1 00	29 00
Lock tender, Port Maitland .....	W. Cnl.Co	Thomas Connor .....	1 month....	30 00	30 00
do assistant do .....	April, 1860	Patrick Cummings....	13 days....	1 00	13 00
Attending 2 bridges, Br. Creek...	do 1866	George Harris.....	10 do ...	1 00	10 00
Laborer on banks, &c.....	June, 1851	Charles Thrush .....	33½ do ...	1 00	33 50
					165 50

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 6, during the month of April, 1870, to Lock Laborers' Establishment, Lock Bridge Assistants, from Dalhousie to Thorold, Chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Lock and Bridge Assistant, No. 1	Aug., 1864	Andrew Hamilton.....	11 days...	1 00	11 00
do do No. 1	Nov., 1854	John Howe.....	25 do ...	1 00	25 00
do do No. 2	Apr., 1852	Walter Weaver.....	26½ do ...	1 00	26 50
do do No. 2	Aug., 1854	James Howe.....	27 do ...	1 00	27 00
do do No. 3	Apr., 1854	Arthur Carl.....	15 do ...	1 00	15 00
do do No. 4	do 1850	John Turnbull.....	18½ do ...	1 00	18 50
do do No. 5	do 1862	William Hare.....	23 do ...	1 00	23 00
do do No. 6	do 1854	Hugh Hagen .....	12½ do ...	1 00	12 50
do do No. 7	do 1854	Robt. Boyle.....	26 do ...	1 00	26 00
do do No. 8	Aug., 1867	Horton Plumsted.....	13 do ...	1 00	13 00
do do No. 9	Apr., 1856	Arthur Bradley.....	19 do ...	1 00	19 00
do do No. 10	do 1867	William Wilson.....	27 do ...	1 00	27 00
do do No. 11	Mar., 1868	Casper Bradley.....	15 do ...	1 00	15 00
do do No. 12	Sept., 1863	Martin Nestor.....	27 do ...	1 00	27 00
do do No. 13	do 1868	Alex. Winslow .....	25 do ...	1 00	25 00
do do No. 14	Oct., 1867	Henry Hair.....	25 do ...	1 00	25 00
do do No. 15	Sept., 1856	James Delaney .....	27 do ...	1 00	27 00
do do No. 16	Mar., 1869	Robt. Gibson.....	25 do ...	1 00	25 00
do do No. 17	Apr., 1862	Frank Weaver.....	21 do ...	1 00	21 00
do do No. 18	Oct., 1855	John Armstrong.....	26 do ...	1 00	26 00
do do No. 19	June, 1853	James Madill.....	24 do ...	1 00	24 00
do do No. 20	July, 1862	Robt. Bradley.....	27 do ...	1 00	27 00
do do No. 21	do 1856	Jas. McAuley .....	13 do ...	1 00	13 00
do do No. 22	Aug., 1854	William Burley.....	27 do ...	1 00	27 00
do do No. 23	Oct., 1854	Stephen Kane.....	27 do ...	1 00	27 00
do do No. 24	Dec., 1863	Austin Moran.....	27 do ...	1 00	27 00
do do No. 25	Apr., 1866	Patrick Friel.....	27 do ...	1 00	27 00
Bridge Tender, Lock No. 2	June, 1863	Charles Kearnes.....	26 do ...	1 00	26 00
do St. Catharines..	Sept., 1859	Dennis Daley.....	21½ do ...	1 00	21 50
do Keefer's .....	Oct., 1863	John McNamara.....	12 do ...	1 00	12 00
					666 00

## ACCOUNTS chargeable to Welland Canal, April, 1870, Maintenance.

Date.		\$	cts.	\$	cts.
1870.	Wm. J. & J. McCalla—				
April.....	To 109 galls. coal oil, at 40 cts.....		43 60		
	25 boxes matches, at 20 cts.....		5 00		
	2 $\frac{1}{2}$ gross lamp wicks, at \$2.....		5 00		
	3 $\frac{1}{2}$ doz. lamp chimneys, \$1.50.....		5 50		
					59 10
	Hunter, Rose & Co.—				
	To Subscription for <i>Ontario Gazette</i> , 1869 and 1870.....				8 00
					67 10

PAY-LIST in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 1, during the month of May, 1870, to Office Establishment, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$	cts.
Paymaster and clerk.....	Mar., 1842	Thos. Adams.....	1 month...	120 00	120 00
Attending office.....	Aug. 1852	M. Cook.....	1 do ...	12 00	12 00
					132 00

PAY-LIST in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No 2, during the month of May, 1870, to St. Catharine's Establishment, Harbor Master, Head Carpenter, Overseer of Works, Lock and Bridge Tenders, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$	cts.
Harbor master, &c., Dalhousie....	Jan., 1858	J. P. Boomer.....	1 month...	93 75	93 75
Head carpenter.....	Apr., 1843	Rich. Collier.....	do ...	75 00	75 00
Lock and br. master, Lock No 1...	Sept., 1853	James Woodall.....	do ...	34 00	34 00
do assistant do 1...	July, 1856	Thos. Barrett.....	do ...	34 00	34 00
do master do 2...	W. Cnl. Co	Wm. Chace.....	do ...	30 00	30 00
do assistant do 2...	May, 1860	Jno. Nestor.....	do ...	30 00	30 00
do master do 3...	Sept., 1845	Wm. Walker.....	do ...	30 00	30 00
do do and bridge do 4...	W. Cnl. Co	Jas. Malpass.....	do ...	34 00	34 00
do do do 5...	Apr., 1845	Frank Meagher.....	do ...	30 00	30 00
do do do 6...	July, 1854	Michael Driscoll.....	do ...	30 00	30 00
do do do 7...	Sept., 1853	Jas. Bradley.....	do ...	30 00	30 00
do do do 8...	July, 1854	Danl. McCarthy.....	do ...	30 00	30 00
do do do 9...	Sept., 1853	Edw. Boyle.....	do ...	30 00	30 00
do do do 10...	do 1856	Bart. Clarke.....	do ...	30 00	30 00
do do do 11...	Apr., 1853	John Reilly.....	do ...	30 00	30 00
do do do 12...	May, 1855	James Conger.....	do ...	30 00	30 00
do do do 13...	Jan., 1864	Thos. Flynn.....	do ...	30 00	30 00
do do do 14...	July, 1866	Geo. Darby.....	do ...	30 00	30 00
do do and bridge do 15...	June, 1849	Michl. Moran.....	do ...	34 00	34 00
do do do 16...	Aug., 1845	Wm. Cochrane.....	do ...	30 00	30 00
do do do 17...	do 1847	Wm. Cavers.....	do ...	30 00	30 00

**PAY-LIST in duplicate of Persons employed on the Welland Canal, &c. —Continued.**

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Lock Master, Lock No. 18...	June, 1853	John Strong.....	1 month...	30 00	30 00
do do do 19...	do 1847	Jas. McCabe.....	do ...	30 00	30 00
do do do 20...	do 1845	Wm. Williams.....	do ...	30 00	30 00
do do do 21...	do 1854	Andrew Taggart .....	do ...	30 00	30 00
do do do 22...	do 1863	Jas. Philips.....	do ...	30 00	30 00
do do do 23...	do 1854	Thos. Turner.....	do ...	30 00	30 00
do do and bridge do 24...	Dec. 1863	Wm. Fegan.....	do ...	30 00	30 00
do do do 25...	do 1854	Jas. Fluellan.....	do ...	30 00	30 00
Guard lock tender, Thorold...	Apr., 1861	Ben. McMahon.....	do ...	30 00	30 00
do assistant.....	do 1861	Rufus Swazze.....	do ...	30 00	30 00
Bridge tender, Lock No. 2.	Sept., 1856	George Howe.....	do ...	26 00	26 00
do St. Catharines.....	Apr., 1850	John McCann.....	do ...	26 00	26 00
do Keefer's.....	Feb., 1863	Saml. Boothe.....	do ...	26 00	26 00
					1,132 75

**PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 3, during the month of May, 1870, to Port Robinson Establishment, Carpenter on repairs, Regulating Water, Lock and Bridge Tender, from Thorold to Junction, chargeable to Maintenance.**

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter on repairs, Thorold Junction and Marshville....	Apr., 1861	Thos. R. Secord.....	1 month...	75 00	75 00
Foreman in charge of water at Allanburgh .....	Wd. C. Co	Henry Higgins.....	1 do ...	30 00	30 00
Lock tender, Allanburgh.....	Apr., 1861	John Bruce.....	1 do ...	30 00	30 00
do asst. do .....	Sep., 1865	Wm. Upper.....	1 do ...	30 00	30 00
Gd. lock tender, Allanburgh	Aug., 1866	Dan. O' Leary.....	1 do ...	30 00	30 00
do assistant do ...	Apr., 1850	Aaron Higgins.....	1 do ...	30 00	30 00
do do do ...	July, 1851	Wm. Higgins.....	1 do ...	30 00	30 00
do do do ...	Apr., 1850	Isaac Radcliffe .....	1 do ...	30 00	30 00
Lock tender, Port Robinson...	July, 1861	Jas. McCoppen.....	1 do ...	26 00	26 00
do aqueduct .....	Apr., 1851	John Watson.....	1 do ...	26 00	26 00
Attending 2 bridges, Junction	May, 1856	Geo. Hannah.....	1 do ...	30 00	30 00
do assistant	Aug., 1866	Chas. Harnah.....	1 do ...	30 00	30 00
Bd. tender, Hursts.....	Apr., 1845	John O'Neil.....	1 do ...	26 00	26 00
do Asst., Hursts.....	do 1853	Thos. Price.....	1 do ...	26 00	26 00
do Marlatts.....	Nov., 1854	John McDonald.....	1 do ...	26 00	26 00
do Asst., Marlatts...	July, 1864	John Gearon.....	1 do ...	26 00	26 00
do Allanburgh.....	Apr., 1866	Jas. Waters.....	1 do ...	26 00	26 00
do Asst. do .....	Sep., 1854	Wm. Leary.....	1 do ...	26 00	26 00
do Port Robinson...	July, 1859	George Thomson .....	1 do ...	26 00	26 00
do Asst. do ...	Aug., 1863	Jas. Welch.....	1 do ...	26 00	26 00
do Quaker.....	do 1865	Nelson Higgins.....	1 do ...	26 00	26 00
do Asst., Quaker...	Apr., 1855	Bart. Brennan.....	1 do ...	26 00	26 00
do Burgess.....	do 1849	Hugh Quinlan.....	1 do ...	26 00	26 00
do Asst., Burgess...	Feb., 1866	Jas. Edmund.....	1 do ...	26 00	26 00
do Aqueduct.....	Aug., 1868	Jas. Foster.....	1 do ...	26 00	26 00
do Asst., Aqueduct..	do 1863	David Tuft.....	1 do ...	26 00	26 00
					761 00



PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 4, during the month of May, 1870, to Port Colborne Establishment, Harbor Master, Overseer of Works, Regulating Water, Lock and Bridge Tender, from Junction to Colborne, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Harbor Master, &c., Colborne....	April, 1858	Nicholas Higgins.....	1 month...	50 00	50 00
Lock and Bridge Tender, Colborne	do 1849	John McGillivray.....	do ...	34 00	34 00
do do do ...	Ang., 1853	John Sweeney.....	do ...	34 00	34 00
do do do ...	May, 1856	John Hinchey.....	do ...	34 00	34 00
do do do ...	April, 1851	Patrick Fahey.....	do ...	34 00	34 00
Laborer on Banks, &c.....	Aug., 1854	Michael Madden.....	26 days....	1 00	26 00
Attending Ferry Scow.....	do 1863	Edward Hanley.....	1 month....	34 00	34 00
Bridge Tender, Stone Bridge.....	June, 1869	Joseph Dickinson.....	do ...	26 00	26 00
do Assistant.....	Sept., 1854	Jeremiah Daley.....	do ...	26 00	26 00
					298 00

PAY-LIST in duplicate of persons employed on the Welland Canal, Sheet No. 1, Division No. 5, during the month of May, 1870, to Port Maitland Establishment, Foreman and in charge of Water Lock and Bridge Tender, from Maitland to Dunnville, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman and in charge of water at Dunnville.....	Welland Canal Co..	Frank Ramsay .....	1 month...	50 00	50 00
Guard Lock Tender, Dunnville, and checking lock passes.....	June, 1856	Robert Morrison.....	do ...	30 00	30 00
Lock Tender, Port Maitland.....	Welland Canal Co..	Thomas Connor.. ....	do ...	30 00	30 00
do Assistant.....	April, 1866	Patrick Cummings....	do ...	26 00	26 00
Attending two Bridges, Bridge Creek.....	do 1866	George Harris. ....	do ...	26 00	26 00
Laborer on Banks, &c.....	June, 1851	Chas. Thrush. ....	28 days....	1 00	28 00
					190 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, Sheet No. 1, Division No. 6, during the month of May, 1870, to Lock Laborers' Establishment, Lock and Bridge Tenders, from Dalhousie to Thorold, chargeable to Maintenance.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Lock and bridge assistant, No. 1....	Aug., 1864	Andrew Hamilton.....	1 month...	34 00	34 00
do do	1... Nov., 1854	John Howe.....	1 do ...	34 00	34 00
do do	2... April, 1852	Walter Weaver .....	1 do ...	30 00	30 00
do do	2... Aug., 1854	James Howe.....	1 do ...	30 00	30 00
do do	3... April, 1854	Nestor Carroll.....	1 do ...	30 00	30 00
do do	4... do 1850	John Turnbull... ..	1 do ...	34 00	34 00
do do	5... do 1862	Wm. Hare.....	1 do ...	30 00	30 00
do do	6... do 1854	Hugh Hagan .....	1 do ...	30 00	30 00
do do	7... do 1854	Robt. Boyle .....	1 do ...	30 00	30 00
do do	8... Aug., 1867	Horton Plumsted .....	1 do ...	30 00	30 00
do do	9... April, 1856	Arthur Bradley.....	1 do ...	30 00	30 00
do do	10... do 1867	Wm. Williams.....	1 do ...	30 00	30 00
do do	11... Mar., 1868	Casper Bradley.....	1 do ...	30 00	30 00
do do	12... Sept., 1863	Martin Nestor.....	1 do ...	30 00	30 00
do do	13... do 1868	Alex. Winslow.....	1 do ...	30 00	30 00
do do	14... Oct., 1867	Henry Hair.....	1 do ...	30 00	30 00
do do	15... Sept., 1856	James Delaney .....	1 do ...	34 00	34 00
do do	16... Mar., 1868	Robt. Gibbons.....	1 do ...	30 00	30 00
do do	17... April, 1862	Frank Weaver.....	1 do ...	30 00	30 00
do do	18... Oct., 1855	John Armstrong.....	1 do ...	30 00	30 00
do do	19... June, 1853	James Madill.....	1 do ...	30 00	30 00
do do	20... do 1853	Robt. Bradley .....	1 do ...	30 00	30 00
do do	21... July, 1863	Jas. McAuley.....	1 do ...	30 00	30 00
do do	22... Aug., 1854	Wm. Burley .....	1 do ...	30 00	30 00
do do	23... Oct., 1854	Stephen Hare.....	1 do ...	30 00	30 00
do do	24... Dec., 1863	Austin Moran .....	1 do ...	30 00	30 00
do do	25... April, 1856	Patk. Friel.....	1 do ...	30 00	30 00
Bridge tender, Lock No. 2.....	June, 1863	Chas. Kearnes.....	1 do ...	26 00	26 00
do St. Catharines.....	Sept., 1859	Dennis Daley.....	1 do ...	26 00	26 00
do Keefer's .....	Oct., 1863	John McNamara.....	1 do ...	26 00	26 00
					904 00

### ACCOUNTS Chargeable to Welland Canal, May, 1870, Maintenance.

Date.	Nature of Work.	\$ cts.	\$ cts.
1870.			
May 31...	To John McGillivray— 12 months house rent, ending 1st March last, at \$7 per month .....		84 00
do —...	To Wm. J. & J. McCalla— 49 gallons coal oil, at 40c.....	19 60	
	3½ doz. lamp chimneys, at \$1.50 .....	5 25	
	3½ do wicks, at 12½c.....	0 44	
			25 29
			109 29

## WELLAND CANAL.

NUMBER of Estimate 1038. Final estimate of work done and materials delivered from the beginning of the work to the 31st July, 1869, by John Brown. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200, to Repair, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Dredging below locks Nos. 2 and 3, 11 days, at \$75, and 11 days tug boat, at \$25.....	1,100 00
Dredging near Ramsay's Bend, 6,415 cubic yards, at 35c. ....	2,245 25
	3,345 25

NUMBER of Estimate 1089. Final estimate of work done and materials delivered from the beginning of the work to the 31st July, 1869, by John Brown. The work, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$2,800, to Repairs, Welland Canal, Dunnville Break.

Description of Works and Materials.	Amount.
	\$ cts.
Use of dredge and tug boat at Dunnville Break, 6½ days, at \$100. ....	650 00
Use of dredge at Dunnville Break, 11 days, at \$75.....	825 00
Team towing scows to Dunnville, 6 days, at \$5.....	30 00
	1,505 00

NUMBER of Estimate 1090. Final estimate of work done and materials delivered from the beginning of the work to the 31st July, 1868, by Lewis Shickluna, by Letter No. 7448. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Repairs scow.

Description of Works and Materials.	Amount.
	\$ cts.
Shipwrights, 3½ days, at \$2.25.....	8 75
do and caulker, 26½ days, at \$1.75.....	45 94
10 tamarack knees, \$19; 450 lbs. pitch, repairs of pump of scow, \$14.....	45 50
499 ft. oak and pine, at 2c.; 100 lbs. oakum, \$12; 4 pitch mops, \$1; ½ gall. oil, 57c.....	23 53
Docking scow, \$10; 1 sash and glass, 75c.; 12 lbs. spikes, 84c.; 8 lbs. bolts, 80c.....	12 39
½ day each and repairs plate, &c., in bridge.....	1 44
	137 57



**NUMBER of Estimate 1091.** Date of Contract 18th April, 1869. Final estimate of work done and materials delivered from the beginning of the work to the 31st July, 1869, by P. J. Phelps, on contract work ordered by Letter No. 7448. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal.—Forging iron.

Description of Works and Materials.	Amount.
	\$ cts.
Furnishing and forging iron screw bolts, &c., 592 lbs., at 7c.....	41 44
do do plates, bands, &c., 1241 lbs., at 6c.....	74 46
do do rag bolts, 267 lbs., at 4½c.....	12 01
Forging iron screw bolts, &c., 76 lbs., at 4c.....	3 04
do plates, bands, &c., 972 lbs., at 3c.....	29 16
do lifting rods, 150 lbs., at 2c.....	3 00
Furnishing and forging crow bar, 20 lbs., at 8c.....	1 60
	164 71

**NUMBER of Estimate 1092.** Final estimate of work done and materials delivered from the beginning of the work to the , 188 , by Chester Dunam, by Letter No. 7448. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Repairs bridges, &c.

Description of Works and Materials.	Amount.
	\$ cts.
Carpenters' labor, 7 days, at \$2.50.....	17 50
do do 28½ do 1.50c.....	42 75
Labor, 3 days, \$1; team, 3 days, at \$3; 12 lbs. spikes, at 10c.; 6½ lbs. iron, at 8c.....	13 12
894 ft. pine, at ½c.; 272 ft. pine, at 2½c.....	20 21
	93 58

**NUMBER of Estimate, 1093.** Final estimate of work done and materials delivered from the beginning of the work to the 31st July, 1869, by N. & P. J. Phelps; Letter No. 7448. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal.—Lumber furnished.

Description of Works and Materials.	Amount.
	\$ cts.
<small>RINGS</small> 3-inch pine plank, 1,108 ft., B. M., at \$10.....	11 08
2-inch do 11,784 ft., B. M., at \$10.50.....	123 73
Sawn lumber, 756 ft., B. M., at \$11.....	8 31
Sawn oak posts for gates, 1,080 ft., B. M., at \$19.....	20 52
do girts and plank, 1,274 ft., B. M., at \$16.....	20 38
	184 02

**NUMBER of Estimate, 1016.** Date of Contract, 20th April, 1868. Number of Contract, 2580. Final estimate of work done and materials delivered from the beginning of the work to the 31st July, 1868, by Yale & Co., on contract work ordered by Letter No. 2775. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$13,000 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Castings, 5,761 lbs., at 4c.....	230 44
Wrought iron, 429½ lbs., at 10c.....	42 95
Brass, 99½ lbs., at 40c.....	39 80
Value of pine boxes and kegs, 14, at \$12.50.....	35 00
Fitting 7 old valves, at \$5; drilling 3 valves, at \$1.50 .....	39 50
	387 69

**NUMBER of Estimate, 1094.** Date of Contract, 30th April, 1869. Number of Contract, 2575. Final estimate of work done and materials delivered from the beginning of the work to the 31st August, 1869, by Wm. J. & J. McCalla, on contract work ordered by Letter No. 4748. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Spikes, 896 lbs., at 4½c.....	40 32
Chain, 394 lbs., at 6½c.....	24 63
Manilla rope, 436 lbs., at 12½c.....	54 50
Roman cement, 10 brls., at \$5.....	50 00
1 pair jack screws, \$48; 1 portable bellows, complete, \$30.....	78 00
1 vice, 64 lbs., at 15c.; 1 anvil, 169 lbs., at 10c.; sledge hammer, 16½ lbs., at 12½c. ....	28 59
1 pair tongs, \$1.59; 4 axes and helves, \$5; 6 boxes matches, \$1.20; 1 pair hinges, 35c...	8 05
1 lock, 25c.; 10 lbs. grease, 90c.; soap, 25c.; broom, 30c.; 6 doz. sash cords, \$1.13 .....	2 83
8½ galls. boiled oil, at \$1.18; 5½ galls. raw oil, at \$1.13; 1 gall. turpentine, at \$2.....	18 25
150 lbs. mixed lead, at 10c.; 16 lbs. yellow ochre, at 5c.; 23 lbs. mineral paints, at 4c.; lamp black, 31c.....	17 03
32 lights, glass, \$2.94; 1 bottle knot killer, 63c.; 1 paper zinc prints, 13c.; 4 lbs. putty, 20c. ....	3 90
	326 10

**NUMBER of Estimate, 1095.** Final estimate of work done and materials delivered from the beginning of the work to the 31st August, 1869, by N. & P. J. Phelps, on contract work ordered by letter No. 4748. The works, the details of which are given in the Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal.

Description of Works and Materials.		Amount.
		\$ cts.
Sawn oak posts, &c., for gates (feet B. M.),	2,706, at \$19.....	51 41
do girts, &c. do do	3,208, at \$16.....	51 32
Sawn pine gate plank	2,000, at \$12.50.....	25 00
do lumber	192, at \$11.....	2 11
do 2-inch plank	8,702, at \$10.50.....	91 37
do 3-inch plank	1,167, at \$10.....	11 67
		232 88

**NUMBER of Estimate, 1096;** final estimate of work done and materials delivered from the beginning of the work to the 31st August, 1869, by Charter Demara, on work ordered by letter No. 4748. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal. Repairs and painting Bridges, Lock-gates, &c.

Description of Works and Materials.		Amount.
		\$ cts.
Carpenters, 7 days at \$2.50.....		17 50
do 16½ days at \$1.50.....		24 75
Painter, 36 days at \$1.50.....		54 00
339 lbs. white lead, at 10 cts.; 19½ gals. oil, at \$1; 38 lbs. putty, at 6 cts.....		55 68
Lampblack, 25 cts.; team ¼ day, \$1.50.....		1 75
		153 68

**NUMBER of Estimate, 1097.** Date of Contract, 18th April, 1869. Final estimate of work done and materials delivered from the beginning of the work to the 31st August, 1869, by P. & J. Phelps on contract work ordered by Letter No. 4748. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal. Forging Iron.

Description of Works and Materials.		Amount.
		\$ cts.
Furnishings and forging iron, screw bolts, &c., 1,348 lbs., at 7 cts.....		94 36
do do plates, bands, &c., 772 lbs., at 6 cts.....		46 32
do do rag bolts, 670 lbs., at 4½ cts.....		30 15
Forging iron, screw bolts, &c., 555 lbs., at 4 cts.....		22 20
do plates, bands, &c.....		43 53
do lifting rods.....		3 00
		239 56



NUMBER of Estimate, 1098. Date of Contract, 20th April, 1869. Final Estimate of work done and materials delivered from the beginning of the work to the 31st August, 1869, by Yale & Co., successor late C. Yale, on contract work ordered by Letter No. 4748. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal. Castings, &c.

Description of Works and Materials.	Amonnt.
	\$ cts.
Castings, 120 lbs., at 4 cts.....	4 80
Wrought iron, 91 lbs., at 10 cts.....	9 10
Brass, 53 lbs., at 40 cts.....	21 20
Brass Matrixes on old screws, 31 lbs., at \$6.....	186 00
Repairing old screws, 12 lbs., at \$1.....	12 00
New valves complete, 4 lbs., at \$67.29.....	269 16
	502 26
LESS—For old castings .....	50 00
	452 26
Valve, 913 lbs.; with rail, 113 lbs.; narrow rail, 97 lbs.; 2 ends, 253 lbs.— 1,376 lbs., at 4 cts.....	\$ 55 04
1 bar, 10 bolts, 49½ lbs., at 10 cts.....	4 95
2 lbs. brass washers, 80 cts.; 2 valve pins, brasses and keys, \$5; drilling bar, \$1.50.....	7 30
	\$ 67 29

NUMBER of Estimate, 1099. Final estimate of work done and materials delivered from the beginning of the work to the 30th September, 1869, by P. & J. Phelps on contract work ordered by Letter No. 4748. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Sawn oak, posts, &c., for gates, B M., 165, at \$19.....	3 13
do girts, &c. do do 13,516, at \$16.....	216 25
Sawn 2 inch pine planks do do 7,699, at \$10.25.....	80 84
do 3 do do 1,461, at \$10.....	14 61
	314 83

**NUMBER of Estimate, 1100.** Date of Contract, 18th April, 1869. Final estimate of work done and materials delivered from the beginning of the work to the 30th September, 1869, by P. & J. Phelps on contract work ordered by Letter No. . The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts
Furnishing and forging iron screw bolts, &c., 2,010 lbs., at 7c.....	140 70
do plates, bands, &c., 84 do 6c.....	5 04
do rag bolts 443 do 4½c.....	19 93
do crowbars 46 do 8c.....	3 68
Forging screw bolts, &c., 273 do 4c.....	10 92
do plates, bands, &c. 995 do 3c.....	29 85
do supervision bars and lifting rods 2,600 do 2c.....	52 00
	262 12

**NUMBER of Estimate 1,101.** Date of Contract, 30th April, 1869. Final estimate of work done and materials delivered from the beginning of the work to the 30th September, 1869, by Wm. J. & J. McCalla, on contract work ordered by Letter No. 4,748. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200, to Repairs, Welland Canal—Sundries.

Description of Works and Materials.	Amount.
	\$ cts.
Spikes, 1,344 lbs., at 4½c.....	60 48
Nails, 125 lbs., at 4c.....	5 00
Manilla rope, 69 lbs., at 12½c.....	8 63
Chain, 82 lbs., at 6½c.....	5 13
26 shovels, at \$1; 100 lbs. iron, \$2.50; 680 lbs. coal, \$3.50; 1 hammer, \$1; 813 boxes matches, \$1.60.....	34 60
6 pair blankets, \$15; 6 ticks and bolsters, \$12; 8 yards baize, \$14; 21 yards window curtain, \$8.40.....	39 40
2½ gallons turpentine, \$5; 12½ gallons boiled oil, \$1.18; 12 gallons raw oil, \$1.13.....	33 31
75 lbs. mixed white lead, 10c.; 25½ lbs. mineral paints, 4c.; 1 lb. lamp black, 31c.....	8 83
¾ lbs. chrome yellow, 28c.; 2 lbs. sienna, 50c.; 1 lb. amber, 19c.; 2 putty, 10c.; stove polish, 19c.....	1 26
4½ gallons varnish \$12.75; hook, staples and screws, 50c.; 1 sieve \$1; sand paper, 11c...	14 36
Soap, 25c.; sal. soda, 23c.; whiting, 5c.....	0 53
	211 53

**NUMBER of Estimate 1102.** Estimate of work done and materials delivered from the beginning of the work to the 30th September, 1869, by Yale & Co., on work ordered by Letter No. 4713. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals—Repairs.

Description of Works and Materials.	Amount.
	\$ cts.
Castings, 1,689 lbs., at 4c.....	67 56
Wrought iron, 184 lbs., at 10c.....	18 40
Brass, 104 lbs., at 40c.....	41 60
New brass matrixes and old screws, 27 lbs., at \$6.....	162 00
Repairs, old screws, 15 lbs., at \$1.....	15 00
Hinges for office shutters, 6 lbs., at 37½c.....	2 25
	306 81

**NUMBER of Estimate, 1103.** Final estimate of work done and materials delivered from the beginning of the work to the 30th September, 1869, by Charter Demara, on work ordered by Letter No. 4748. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal, Bridges, &c.

Description of Works and Materials.	Amount.
	\$ cts.
Carpenters, 8½ days, at \$2.50.....	21 25
do 12½ do 1.75.....	21 88
do 16½ do 1.50.....	25 12
Team 3½ do 3.00.....	10 00
Iron furnished and forged, 99 lbs., at 8c.....	7 92
Iron forged, 375 lbs., at 4c.....	15 00
Oak lumber furnished, 1,816 ft., at 2c.....	36 32
Pine do 401 do 1½c.....	6 01
Spikes, 39 lbs., at 5c.....	1 95
	145 45

**NUMBER of Estimate, 1104.** Final estimate of work done and materials delivered from the beginning of the work to the 30th September, 1869, by J. P. Abbey. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Repairs, Scows.

Description of Works and Materials.	Amount.
	\$ cts.
Shipwrights, 19 days, at \$3.00.....	38 00
do 74½ do 1.75.....	129 93
Dockage of 3 scows, \$8, \$8, \$6; 147 lbs. iron, at 6c.....	30 82
258 lbs. oakum, at 15c.; 450 lbs. pitch, at 5c.; 5 pitch cups, at 5c.; 46 lbs. spikes, at 6c.....	70 51
955 ft. oak plank, at 3c.; 888 ft. pine, at 2½c.; 1 knee, \$1.25; 4 oak knees, at \$2; glass and putty, 12c.....	54 47
	323 73



**NUMBER of Estimate, 1105.** Final estimate of work done and materials delivered from the beginning of the work to the 31st October, 1869, by N. & P. J. Phelps, on contract work ordered by Letter No 4748. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Lumber furnished.

Description of Works and Materials.	Amount.
	\$ cts.
Oak lumber for gates, posts, &c., 2,766 ft., B.M., at \$19.00.....	52 55
do girts, gates, &c., 14,745 do 16.00.....	235 92
Pine gate plank, 1,148 do 12.50.....	14 35
2 in. pine gate plank, 6,077 do 10.50.....	63 80
3 in. do 3,610 do 10.00.....	36 10
Shingles, 13 M., \$3.....	39 00
	441 72

**NUMBER of Estimate, 1106.** Final estimate of work done and materials delivered from the beginning of the work to the 31st October, 1869, by John Hammond, on work ordered by Letter No. 4748. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Stone delivered at Dunnville Dam, &c.

Description of Works and Materials.	Amount.
	\$ cts.
Stone delivered at Dunnville waste weirs, 87 cords, at \$4.50.....	391 50
Gravel delivered on embankments, 120 yards, at 60c.....	72 00
	463 50

**NUMBER of Estimate, 1107.** Final estimate of work done and materials delivered from the beginning of the work to the 31st October, 1869, by Irwin & Duvall, on work ordered by Letter No. 4748. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Lumber furnished.

Description of Works and Materials.	Amount.
	\$ cts.
Pine lumber, 5,866 ft., B.M., at \$11.....	64 52
Oak do 2,458 do 13.....	31 95
Hauling, \$13; 40 lbs. spike, \$2; 50 ft. pine timber, \$7.50.....	12 50
Carpenter, 1 day, \$2; 2 days, at \$1.50; labor, 4 days, at \$1.....	13 50
	122 47

**NUMBER of Estimate, 1108.** Final estimate of work done and materials delivered from the beginning of the work to the 31st October, 1869, by Chester Demara, on work ordered by Letter No. 4748. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Bridges and Culvert at Brown's Ditch.

Description of Works and Materials.	Amount.
Carpenter, labor, 31½ days, at \$2.50.....	\$ cts.
do 107¼ do 1.50.....	78 75
Carpenter, 3 days, at \$1.25; labor, 2 days, at \$1; team, 3½ days, at \$3.....	161 62
Pine lumber, 3154 ft., at 1½ cents.....	16 25
Oak do 3847 do 2 do .....	47 31
Pine timber, 756 do 14 do .....	76 94
474 lbs. iron, furnished and forged, at 8 cts.; 474½ lbs. iron, forged, at 4 cts.; 278 lbs. spikes, at 5 cts.....	105 84
White oak piles, furnished and dressed, 13, at \$15.....	70 81
	65 00
	622 52

**NUMBER of Estimate, 1109.** Final estimate of work done and materials delivered from the beginning of the work to the 31st October, 1869, by Yale & Co., successors to C. Yale, on contract work ordered by Letter No. 4748. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Castings, &c.

Description of Works and Materials.	Amount.
Castings, 2,289 lbs., at 4 cts.....	\$ cts.
Wrought iron, 99 lbs., at 10 cts.....	91 56
Brass, 26 lbs., at 40 cts.....	9 90
Extra drilling, 2 bars, \$3; 1 globe on lamp, \$1; 4 valve boxes and keys, at \$2.50.....	10 40
Valve, 913 lbs., with rail, 113 lbs; narrow rail, 97 lbs.; 2 ends, 253 lbs.—1,376 lbs., at 4 cts.....	14 00
1 bar, 10 bolts, 49½ lbs., at 1 ct.....	55 04
2 lbs. brass washers, 80 cts.; 2 valve pins, brasses and keys, \$5; drilling bar, \$1.50.....	4 95
Valves complete, 4, at \$67.29.....	7 30
Galvanized iron cornices and gutter on office building, 208 ft., at \$1.75.....	269 16
Repairs to top of deck, \$1.50; gutter pipe, with 4 ft. conductor pipe and elbows, \$2.....	364 00
Repairs to iron door, \$3 50; repairs on roof, \$5; fitting up stoves and making circular elbows, \$4.....	3 63
Russia iron stove pipe, 98 lbs., at 25 cts.....	12 50
	24 50
	799 65

NUMBER of Estimate 1110. Date of contract, 18th April, 1863. Number of contract 2581. Final estimate of work done and materials delivered from the beginning of the work to the 31st October, 1869, by P. & J. Phelps, on contract work, ordered by Letter No. 4,748. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 to Repairs, Welland Canal—Forging iron.

Description of Works and Materials.	Amount.
	\$ cts.
Furnishing and forging iron, screw bolts, &c., 2,478 lbs., at 7c.....	173 46
do plates, bands, &c., 363 lbs., at 6c.....	21 78
do rag bolts, 1,013 lbs., at 4½c.....	45 58
Forging iron screw bolts, &c., 289 lbs., at 4c.....	11 56
do plates, bands, &c., 1,768 lbs., at 3c.....	53 04
do suspension bars and lifting rods, 1,100 lbs., at 2c.....	22 00
	327 42

#### ACCOUNTS Chargeable to Welland Canal Repairs, for October, 1869.

Nature of Works.	Amount.
	\$ cts.
Tug "T. R. Secord", Port Robinson—Towing "Secord" from Port Robinson to Thorold	8 00
George Vanderburgh, Allanburgh—Forging iron bolts, 396 lbs., at 5c.....	19 80
H. McNally, Port Dalhousie—Meals furnished men, 114, at 25c.....	28 50
W. Weaver—Meals furnished men, 8, at 25c.....	2 00
T. Jenkinson—Meals furnished men, 20, at 25c.....	5 00
	63 30

NUMBER of Estimate, 511. Progress estimate of work done and materials delivered from the beginning of the work to the 31st October, 1869, by David Irvin, on contract work ordered by Letter No. 5141. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$3,591 to protection works to dam at Dunnville.

Description of Works and Material.	Amount.
	\$ cts.
Piles furnished and driven, 45 ft. long, 25 at \$5.50.....	137 50
Piles furnished, not driven, 50 at \$2.....	100 00
Iron shoes for piles furnished, 24 at \$1.50.....	36 00
Oak timber furnished, 500 ft. at 10 cts.....	50 00
Oak furnished, 50,000 ft. at 7 cts.....	350 00
	673 50



**NUMBER of Estimate, 517.** Progress estimate of work done and materials delivered from the beginning of the work to the 30th November, 1869, by David Irvin, on the contract work ordered by Letter No. 5441. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$3,592 to protection works to dam at Dunnville.

Description of Works and Materials.	Amount.
	\$ cts.
White oak piles furnished and driven, 45 ft. long, 10 at \$15.50.....	55 00
do do do 40 ft. long, 20 at \$5.....	100 00
do do do 35 ft. long, 40 at \$4.50.....	180 00
do do do 30 ft. long, 73 at \$4.25.....	310 25
Iron shoes furnished and put in piles, 24 at \$1.50.....	36 00
Oak furnished, 50,000 ft. at 7 cts.....	350 00
Oak timber cups in piles, 450 ft. at 20 cts.....	90 00
do put in dock, 450 at 18 cts.....	81 00
Timber put in dock (not furnished), 1,000 ft. at 6 cts.....	60 00
Gravel furnished and put in work, 250 cub. yds. at 60 cts.....	150 00
	1,412 25

**NUMBER of Estimate, 519.** Progress estimate of work done and materials delivered from the beginning of the work to the 31st December, 1869, by David Irvin, on contract work ordered by Letter No. 5,441. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$3,592 to protection works to dam at Dunnville.

Description of Works and Materials.	Amount.
	\$ cts.
White oak piles furnished and driven, 45 ft. long, 10, at \$5.50.....	55 00
do do do 40 ft. long, 20, at \$5.....	100 00
do do do 35 ft. long, 40, at \$4.50.....	180 00
do do do 30 ft. long, 73, at \$4.25.....	310 25
Iron shoes furnished and put in piles, 24, at \$1.50.....	36 00
Oak furnished, 18,000 ft., B.M., at \$7.....	126 00
White oak timber furnished, caps on piles, 1,335 cub. ft., at 20 cts.....	267 00
do do put on dock, 948 cub. ft., at 18 cts.....	170 64
do do leveling dock, 100 lineal ft., at 18 cts.....	18 00
Docking put in work, not furnished, 1,387 ft., at 6 cts.....	83 22
Gravel furnished and put in work, 450 cub. yds., at 60 cts.....	270 00
Sheet piles (oak), 16,000 sup. ft., at \$34.....	544 00
Wrought iron bolts, 300 lbs., at 60 cts.....	18 00
	2,178 11

**NUMBER of Estimate, 526.** Progress estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by David Davin, on contract work ordered by Letter No. 5,441. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$3,592 to protection works to dam at Dunnville.

Description of Works and Materials.	Amount.
	\$ cts.
White oak piles furnished and driven, 45 ft. long, 30, at \$5.50.....	165 00
do do do 40 ft. long, 20, at \$5.....	100 00
do do do 35 ft. long, 40, at \$4.50.....	180 00
do do do 30 ft. long, 73, at \$4.25.....	310 25
Iron shoes furnished and put in piles, 24, at \$1.50.....	36 00
White oak timber furnished, cap in piles, 1,935 cub. ft., at 20 cts.....	387 00
do do put in dock, 1,500 cub. ft., at 18 cts.....	270 00
do do leveling dock, 120 ft., at 18 cts.....	21 60
Docking put in work, not furnished, 1,475 ft., at 6 cts.....	88 50
Gravel furnished and put in work, 650 cub. yds., at 60 cts.....	390 00
2-inch oak sheeting, facing dock, 24,378 sup. ft., at \$34.....	828 85
Wrought iron bolts, 300 lbs., at 6 cts.....	18 00
Excavating unmeasured work, 26 days, at \$1.....	26 00
	2,821 20

**NUMBER of Estimate 529.** Final estimate of work done and materials delivered from the beginning of the work to the 31st March, 1870, by David Irvin on contract work ordered by Letter No. 5441. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$3,592 to protection work to dam at Dunnville.

Description of Works and Materials.	Amount.
	\$ cts.
White oak piles, furnished and driven, 45 ft. long, 30, at \$5.50.....	165 00
do do do 40 do 20, at 5.00.....	100 00
do do do 35 do 40, at 4.50.....	180 00
do do do 30 do 73, at 4.25.....	310 25
Iron shoes furnished for piles, 24, at \$1.50.....	36 00
White oak timber, furnished cap in piles, 1935 feet, at 20c.....	387 00
do do put in dock, 1620 do at 18c.....	291 60
Docking put in work, not furnished, 1498 feet, at 6c.....	89 88
Gravel furnished and put in work, 685 cubic yards, 60c.....	411 00
Iron bolts furnished, 1527 lbs., at 6c.....	91 62
Executing unmeasured work, 63 days, at \$1.50c.....	94 50
White oak sheeting facing dock, 2-in. waling, 25,847 sup. ft., at \$34.....	878 80
Furnishing materials and making ladders, 5, at \$5 ..	25 00
White lead furnished, 4 kegs, at \$3.....	12 00
	3,072 65

**NUMBER of Estimate 1111.** Final estimate of work done and materials delivered from the beginning of the work to the 30th November, 1869, by Tucker & Rannie, on work ordered by Letters Nos. 4743 and 5650. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 and \$2,400 to Repairs, Welland Canal.—Lumber furnished, &c.

Description of Works and Materials.	Amount.
Sawn pine lumber, 5827 feet, per B. M., at \$12.....	\$ cts. 69 92
do oak do 56 do at 15.....	0 84
191 feet lath.....	1 66
12 lamp wicks and lamp chimneys, \$1.10; 51½ lbs. nails, at 4c.; hinges and screws, 66c..	3 82
Borax, 25c.; glass and putty, 30c.; paper, ink and pens, 49c.; padlock, 25c.....	1 29
	77 53

**NUMBER of Estimate, 1112.** Final estimate of work done and materials delivered from the beginning of the work to the 30th November, 1863, by N. & B. Phelps on work ordered by Letters Nos. 4748 and 5650. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 and \$2,400 to Repairs, Welland Canal.—Lumber furnished.

Description of Works and Materials.	Amount.
Sawn oak for gates for posts, 5,724 ft., B. M., at \$19 00 M.....	\$ cts. 108 75
do do girts, 11,204 do 16 00 M.....	179 26
3-inch oak plank, 1,692 do 15 00 M.....	25 38
2-inch do and lumber, 4,400 do 16 00 M.....	70 40
Sawn pine gate plank, 4,192 do 12 50 M.....	52 40
2-inch pine plank, 4,666 do 10 50 M.....	48 99
3-inch do 2,298 do 10 00 M.....	22 98
Sawn pine timber, 666 do 11 00 M.....	7 32
Rafting and delivering lumber at Port Colborne and Dalhousie.....	17 50
	532 98



**NUMBER of Estimate, 1113.** Date of Contract, 18th April, 1869. Final estimate of work done and materials delivered from the beginning of the work to the 30th November, 1869, by P. & J. Phelps on contract work ordered by Letters Nos. 4748 and 5650. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 and \$2,400 to Repairs, Welland Canal.—Forging iron.

Description of Works and Materials.	Amount.
	\$ cts.
Iron furnished and forged, screw bolts, &c., 2,145 lbs., at 7 cts.....	150 15
do do plates, bands, &c., 1,635 lbs., at 6 cts.....	98 10
do do rag bolts, 116 lbs., at 4½ cts.....	5 22
do do sledge, 20 lbs., 8 cts.....	1 60
Iron forged screw bolts, &c., 523½ lbs., at 4 cts.....	20 93
do plates, bands, &c., 1,973 lbs., at 3 cts.....	59 19
do suspension bars and lifting rods, 1,650 lbs., at 2 cts.....	33 00
do rag bolts, 72 lbs., at 1½ cts.....	1 08
	369 27

**NUMBER of Estimate, 1114.** Final estimate of work done and materials delivered from the beginning of the work to the 30th November, 1869, by Charter Demara. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 and \$2,400 to Repairs, Welland Canal—Repair bridges, &c.

Description of Works and Materials.	Amount.
	\$ cts.
Carpenter's labor 5 days, at \$2.50.....	12 50
do 40½ do at 1.50.....	60 75
do 3 do at 1.25.....	3 75
Team 2 days, at \$3.....	6 00
Iron, furnished and forged 45 lbs., at 8c.....	3 60
do forged 117 do at 4c.....	4 68
Spikes 38 do at 5c.....	1 90
Sawn oak, 198 feet, at 2c.....	3 96
do pine, 652 do at 1½c.....	9 78
	106 92

NUMBER of Estimate, 1115. Date of Contract, 30th April, 1869. Number of Contract, 1115. Final estimate of work done and materials delivered from the beginning of the work to the 30th November, 1869 by William J. & J. McCalla on contract work ordered by Letters Nos. 4748 and 5650. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$17,200 and \$2,400 to Repairs, Welland Canal.—Sundries.

Description of Works and Materials.	Amount.
	\$ cts.
Manilla rope, 110 lbs., at 12½c.....	13 75
Chain, 76 lbs., at 6½c.....	4 75
19 galls. boiled oil, at \$1.18; 1 gall. raw oil, \$1.13; 45½ lbs. putty, at 5c.....	25 82
5 do turpentine, at \$2; 300 lbs. mixed white lead, at 10c.; 1 axe helve, 25c.....	40 25
6 shovels, \$6; 200 lbs. nails, at 4c.; 4 brooms, \$1.20; soap, 50c.; 12 lbs. sperm candles, \$4.50.....	20 20
	104 77

NUMBER of Estimate, 1116. Final estimate of work done and materials delivered from the beginning of the work to the 31st December, 1869, by Peter Gibbins. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure to Repairs, Welland Canal.—Sundries.

Description of Works and Materials.	Amounts.
	\$ cts.
Iron furnished, 911 lbs., at 3 cts.....	27 33
do 39 lbs., at 3½ cts.; 16 lbs., at 4 cts.; 28 lbs., at 6½ cts.....	3 76
60 lbs. chain, at 9 cts.; 4 lbs. chub nails, at 50 cts.....	5 90
8 kegs white lead, at \$2.62½; 6 kegs, at \$2.37½; 3 kegs, at \$2.25.....	41 75
5 galls. boiled oil, at \$1.12½; 8 galls. raw oil, at \$1.18½; 3½ galls., at \$1.....	17 62
Turpentine, 38 cts.; lamp black, \$1; ½ gall. varnish, \$1.50; 6 lbs. putty, 36 cts.; 1 bottle oil, 31 cts.....	3 55
	99 91

NUMBER of Estimate, 1117. Final estimate of work done and materials delivered from the beginning of the work to the 31st December, 1869, by Elsenhans & Schliffe. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure to Repairs, Welland Canal.—Forging iron.

Description of Works and Materials.	Amount.
	\$ cts
Iron furnished and forged, 240½ lbs., at 8 cts.....	19 26
do forged, 1,899 lbs., at 4 cts.....	75 96
	95 22

NUMBER of Estimate, 1118. Final estimate of work done and materials delivered from the beginning of the work to the 31st December, 1869, by P. & J. Phelps. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure to Repairs, Welland Canal.—Forging iron.

Description of Works and Materials.	Amount.
	\$ cts.
Iron furnished and forged, screw bolts, &c., 1,422 lbs., at 7 cts.....	99 54
do do plate bands, &c., 433 lbs., at 6 cts.....	25 98
do do suspension bar and lifting rod, 1,150 lbs., at 5 cts.....	57 50
do do rag bolts, 264 lbs., at 4½ cts.....	11 88
do forged screw bolts, &c., 431½ lbs., at 4 cts.....	17 25
do do plates, bands, &c, 1,533 lbs., at 3 cts.....	45 99
do do lifting rods, 175 lbs., at 2 cts.....	3 50
	261 64

NUMBER of Estimate, 1119. Final estimate of work done and materials delivered from the beginning of the work to the 31st December, 1869, by N. & R. Phelps. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure to Repairs, Welland Canal.—Lumber furnished.

Description of Works and Materials.	Amount.
	\$ cts.
Sawn oak for heel posts and gates, 6,504 ft. B.M., at \$19 00.....	123 57
do &c., for girts, &c. 8,522 do 16 00.....	136 35
Sawn pine lumber 1,728 do 11 00.....	19 09
do 2-inch plank 1,327 do 10 50.....	13 93
	292 85

NUMBER of Estimate, 1120. Final estimate of work done and materials delivered from the beginning of the work to the 31st January, 1870, by John Hammond. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Gravel delivered, 36 c. yds., at 60 cts.....	21 60
Stone delivered at bridge over Sulphur Creek, 12 c. yds., at \$3.....	36 00
	57 60



**NUMBER of Estimate, 1121.** Final estimate of work done and materials delivered from the beginning of the work to the 31st January, 1870, by Irwin & Duvall. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts
Sawn pine lumber, 2,834 ft., B.M., at \$11.....	31 17
do oak do 976 do 13.....	12 68
Hauling 7 loads, \$2.25; 5 pike handles, \$1.25.....	3 50
	47 35

**NUMBER of Estimate, 1122.** Final estimate of work done and materials delivered from the beginning of the work to the 31st January, 1870, by J. Amsden. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Machine oil, 10 galls., at \$1.25 .....	12 50
Coal oil, 31½ galls., at 50c.....	15 75
22 lbs. cut nails, at 5c.; 25 lbs wrought nails, at 12½c.; 1 brl., \$2.50; 5 glass chimneys, 50c.....	7 23
1 4-pronged fork, \$1.25; 12 bolts and 2 chisels, \$4.50; rope, 44c.....	6 19
Pad-lock, 50c.; hinges and screw bolts, 82c.; pail, 30c.; knob for bridge and extension key, \$1.63.....	3 25
Ink, paper, glass, putty and pencil, \$2.70; padlock, hinges and screws, \$1.07; pail, glass and pick handle, 65c.....	4 42
	49 34

**NUMBER of Estimate, 1123.** Final estimate of work done and materials delivered from the beginning of the work to the 31st January, 1870, by Edward Grant. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ ct
Construction of lower lift gates for Colborne Lock, complete .....	758 00
Less for foot bands, \$10; adjusting screw, \$11; iron link forged for \$7 .....	28 00
	730 00

NUMBER of Estimate, 1124. Date of Contract, 20th April, 1883. Number of Contract, 2530. Final estimate of work done and materials delivered from the beginning of the work to the 31st January, 1870, by Yale & Co., successors to late F. Yale, on contract work. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Castings, 2,907 lbs., at 4c. ....	116 28
Wrought iron, 227½ lbs., at 10c. ....	22 75
Brass, 86 lbs., at 40c. ....	34 40
Valve pins, boxes and keys, 6, at \$2.50 .....	15 00
4 glass globes put in lamps, \$4 ; 2 glass chimneys and burners, 45c. ; oil-pot, 50c. ....	4 95
Drilling 2 bars, \$3 ; fitting 3 old valves, \$15 ; turning 2 bridge pivots, \$2 ; coal scoop, 75c. ....	20 75
	214 13
LESS for 220 lbs. old brass, at 12½c. ....	27 50
	186 63

NUMBER of Estimate, 1125. Date of Contract, 30th April, 1863. Number of Contract, 2575. Final estimate of work done and materials delivered from the beginning of the work to the 31st January, 1870, by Wm. J. & J. McCalla, on contract. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals authorizing an expenditure to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Spikes, 448 lbs., at 4½c. ....	20 16
Cut nails, 150 lbs., at 4c. ....	6 00
Manilla rope, 258 lbs., at 12½c. ....	32 25
25 lbs. mixed white lead, \$2.50 ; 2 sets sticks and dies, \$12 ; 1 cross-cut saw, \$4 .....	18 50
750 carriage bolts, \$19.75 ; 73 lbs. pressed nuts, \$7.30 ; 7 gross washers, \$1.75 .....	28 80
32 lbs. cast steel, \$6.40 ; 1 grindstone, \$2.33 ; 1 Félloe saw, 38c. ; 6 files, 75c. ; 2 chisels, 75c. ; 2 gouges, 50c. ....	11 11
1,036 lbs. iron, at 3½c. ; 46 lbs. sheet iron, \$1.96 ; 5 lbs. pressed nails, 50c. ....	36 13
12 ft. leather belting, at 15c. ; 25 ft. do., at 25c. ; castile soap, 37c. ....	8 42
	161 37

**NUMBER of Estimate, 1126.** Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by John Berryman, on contract work ordered by Letter No. 6225. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railway and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal, Swing Bridges at Locks Nos. 4 and 5.

Description of Works and Materials.	Amount.	Total.
	\$ cts.	\$ cts
<b>Bridge across Lock No. 4:—</b>		
Swing, complete.....	600 00	
Oak timber put in approaches, &c., 751 c. ft., at 30c.....	225 30	
Pier do do 28 do 25c.....	7 00	
Oak plank do 1,174 ft., B.M., at \$22.....	25 82	
Iron furnished and forged, 1,289 lbs., at 6c.....	77 34	
Labor, excavating foundation, 80 days, at \$1.....	80 00	
		1,015 46
<b>Bridge across Lock No. 5:—</b>		
Swing, complete.....	600 00	
Oak timber put in approaches, 1,094 c. ft., at 30c.....	328 20	
Oak plank, 2,520 ft., B.M., at \$22.....	55 44	
Pine timber, 26 c. ft., at 25c.....	6 50	
Hand-rail for temporary bridge, 80 lin. ft., at 10c.....	8 00	
Iron furnished and forged, 2,448 lbs., at 6c.....	146 88	
Labor, excavating foundation, 60 days, at \$1.....	60 00	
		1,205 02
<b>Total.....</b>		2,220 48

**NUMBER of Estimate, 1127.** Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by Charter Demara, on contract work, ordered by Letter No. 6225. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal—Bridge over Port Colborne Lock.

Description of Works and Materials.	Amount
	\$ cts.
Swing complete.....	600 00
Oak timber on approach, 97 cubic feet, at 30c.....	29 10
do plank do 1,238 feet, B. M., at \$1.22.....	27 23
Iron furnished and forged, 843 lbs., at 7c.....	59 01
do forged, 379½ lbs., 4c.....	15 90
	731 24



**NUMBER of Estimate, 1128.** Name of contractor, William Walker. Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by William Walker, on contract work ordered by Letter No. 6225. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal—Tow path bridge over 12-Mile Creek, at St. Catharines.

Description of Works and Materials.		Amount.
Pine timber furnished and put in order, 678 feet, at 22c.....		\$ cts. 149 16
do do 341 do 28c.....		95 48
Oak plank do 4,080 feet, B. M., at \$18 per M.....		73 44
Iron bolts do 144 lbs., at 6c.....		8 64
		326 72

**NUMBER of Estimate, 1129.** Name of contractor, Edward Grant. Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by Edward Grant, on contract work ordered by Letter No. 6225. The work, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal.

Description of Works and Materials.		Amount.
		\$ cts.
Constructing gates for Lock No. 16, 2, at \$120 each.....		240 00
Taking out old gate, stripping off irons and hanging new gate.....		40 00
do do do at Lock No. 7.....		40 00
		320 00

**NUMBER of Estimate, 1130.** Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870 by L. Shickluna. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal—Repairs, scow, &c.

Description of Works and Materials.		Amount.
		\$ cts.
Use of pile driver, 11 days, at \$3.....		33 00
Pump for scow, and fitting.....		17 80
Clay carters, 6 at \$1.50.....		9 00
Hoist for bridge, repairing plate hanging, spikes, &c. ....		5 52
12 lbs. spikes, 72c.; 18 lbs. oakum, \$2.25; 752 ft. timber, at 17c., \$12.78 .....		15 75
5½ days shipwrights, \$10.06; ¼ day fireman, \$1.50.....		11 56
Repairs damage done to pile driver.....		8 00
		100 63

NUMBER of Estimate, 1131. Estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by John Hammond, on work ordered by Letter No. 6225. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Stone delivered at Sulphur Creek Bridge, 16 cords, at \$3.....	48 00

NUMBER of Estimate, 1132. Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by N. & O. Z. Phelps, on contract work ordered by Letter No. 6225. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Sawn oak for posts, gates, 799 ft., B.M., at \$19.00 per M.....	15 18
do do girts do 12,064 do at 16.00 do .....	193 02
do pine gate plank 10,000 do at 12 50 do .....	125 00
do do lumber 10,324 do at 11.00 do .....	113 56
do do 2 inch plank 6,588 do at 10.50 do .....	69 17
do do 3 do 650 do at 10.00 do .....	6 50
	522 43

NUMBER of Estimate 1133. Name of Contractor, P. J. Phelps. Date of contract, 18th April, 1863. Number of contract, 2,581. Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by P. & J. Phelps, on contract work ordered by Letter No. 6225. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000, to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Furnishing and forging iron screw bolts, &c., 1,960½ lbs., at 7c.....	137 23
do do plate bands, &c., 3,025 lbs., at 6c.....	181 50
do do suspension bars, &c., 1,430, at 5c.....	71 50
do do rag bolts.....	3 60
do do crow bar, 21 lbs., at 8c.....	1 68
Forging iron screw bolts, &c., 1,483 lbs., at 4c.....	5 95
do plate bands, &c., 991 lbs., at 3c.....	29 73
do suspension bars, &c., 300 lbs., at 2c.....	6 00
	437 19

**NUMBER of Estimate, 1134.** Name of Contractor, Robert Henry. Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by Robert Henry, work ordered by Letter No. 6225. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000, to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Iron furnished and forged, 791 lbs., at 7c.....	55 37

**NUMBER of Estimate, 1135.** Name of Contractor, Wm. J. & J. McCalla. Date of Contract, 30th April, 1863. Number of contract, 2575. Final estimate of work done and materials delivered from the beginning of the work to the 28th February, 1870, by Wm. J. & J. McCalla, on contract work ordered by Letter No. 6225. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000, to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Spikes, 1,344 lbs., at 4½c.....	60 48
Shovels, 15, at \$1 each.....	15 00
100 lbs. Manilla rope, \$12.50 ; 106 lbs. cut nails, \$4.24 ; 8 pails, \$2.40.....	19 14
62 carriage bolts, \$1.86 ; 2 saws, 60c. ; 6 boxes matches, \$1.20.....	3 66
	98 28

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 1, during the month of February, 1870, to Carpenters on Repairs, Lock-gates, Bridges, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter.....	Feb., 1870.	John Hanning.....	23 days...	1 75	40 25
do .....	do ...	Hermond Plumsted...	19 do ...	1 50	28 50
Team hauling.....	do ...	Chas. Hill.....	22½ do ...	3 00	67 50
Carpenter.....	do ...	— Gordis .....	7½ do ...	3 00	22 50
do .....	do ...	Wm. Walker.....	16½ do ...	1 50	24 38
do .....	do ...	Alex. Walker.....	10½ do ...	1 50	15 75
do .....	do ...	Michael Driscoll.....	13½ do ...	1 00	13 50
					212 38



**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 2, during the month of February, 1870, to Laborers on Repairs, Banks, &c., from Dalhousie to Thorold, chargeable to Ordinary Repairs.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer at Dalhousie.....	Feb., 1870.	Jonathan Woodall.....	13½ days...	0 87½	11 81
Mason at do .....	do ...	George Brooks .....	3 do ...	2 00	6 00
Laborer, repairing waste weirs, Lock No. 2.....	do ...	John Weaver.....	17½ do ...	0 87½	15 53
do do .....	do ...	Wm. Laughlan.....	15½ do ...	0 87½	13 56
do do .....	do ...	James Gunning .....	17½ do ...	0 87½	15 31
do do .....	do ...	Michael Joyce.....	15½ do ...	0 87½	13 78
do do .....	do ...	John Beatty.....	19½ do ...	0 87½	16 84
do do .....	do ...	John Conger.....	15½ do ...	0 87½	13 56
do do .....	do ...	John Collins.....	17½ do ...	0 87½	15 53
do do .....	do ...	John Morgan.....	16½ do ...	0 87½	14 66
do do .....	do ...	Thos. Arnott.....	13½ do ...	0 87½	11 81
do do .....	do ...	James Keller.....	14½ do ...	0 87½	12 47
do do .....	do ...	Edward Manly.....	14½ do ...	0 87½	12 91
do do .....	do ...	Daniel Meagher.....	15½ do ...	0 87½	13 78
do do .....	do ...	James Hare .....	17½ do ...	0 87½	15 09
do do .....	do ...	Thos. Osburn.....	14½ do ...	0 87½	12 47
Laborer .....	do ...	Bernard Brinnan.....	15½ do ...	0 87½	13 34
do .....	do ...	George Bradt.....	2 do ...	0 87½	1 72
do .....	do ...	Thos. Carson.....	16½ do ...	0 87½	14 60
do .....	do ...	Wm. Reardon.....	14 do ...	0 87½	12 24
do .....	do ...	Patrick Garner.....	14½ do ...	0 87½	12 91
do .....	do ...	Wm. Fahey.....	12½ do ...	0 87½	10 77
do .....	do ...	John Sheehan.....	11½ do ...	0 87½	9 84
do .....	do ...	John Hamberry.....	10½ do ...	0 87½	9 44
do .....	do ...	Michael Maloy.....	8½ do ...	0 87½	7 44
do .....	do ...	Michael Caffrey.....	1½ do ...	0 87½	1 00
Mason work on Locks Nos. 4 and 5, and waste Weir, Lock No. 2.	do ...	Gabriel Pocock.....	13½ do ...	2 00	26 50
do do .....	do ...	John Pocock.....	12½ do ...	2 00	25 50
do do .....	do ...	Wm. Pocock.....	5½ do ...	2 00	11 00
do do .....	do ...	Thos. Pocock.....	5 do ...	2 00	10 00
Tender.....	do ...	Dennis Crowley.....	6½ do ...	1 00	6 75
Laborer .....	do ...	Wm. Assell.....	24 do ...	1 00	24 00
					412 25

**PAY-LIST** in duplicate of persons employed on the Welland Canal, Sheet No. 2, Division No. 3, during the month of February, 1870, to Laborers on Repairs, Banks, &c., from Thorold to Port Colborne, chargeable to Ordinary Repairs.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$
Carpenter on repairs.....	Feb., 1870	John Bruce.....	24 days...	1 25	30
Laborer.....	do ...	Jos. Numan.....	4 do ...	1 00	4
do .....	do ...	Alex. Shields.....	18 do ...	1 00	18
Team hauling.....	do ...	Daniel Kelly.....	12 do ...	2 50	30
					82

NUMBER of Estimate, 1136. Final estimate of work done and materials delivered, from the beginning of the work to the 31st March, 1870, by William Walker, on Contract work ordered by Letter No. 6225. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal.—Tow path bridges, Barry Point.

Description of Works and Materials.	Amount.
	\$ cts.
Pine timber, furnished and put in work, 824 cubic feet, at 22c.....	181 28
Oak plank do do 5,880 feet B. M., at \$20 per M.....	117 60
Iron bolts do do 214 lbs., at 6c.....	12 84
	311 72

NUMBER of Estimate, 1137. Final estimate of work done and materials delivered from the beginning of the work to the 31st March, 1870, by Edmond Grant, on contract work ordered by Letter No. 6225. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Constructing gates at lock No. 10, 2, at \$120.....	240 00
do do No. 12, 2, at 120.....	240 00
Removing old gates, stripping off iron and hanging gates, lock No. 10, 2, at \$40.....	80 00
do do do No. 12, 2, at 40.....	80 00
do do do No. 16, 1, at 40.....	40 00
	680 00

NUMBER of Estimate, 1138. Final estimate of work done and materials delivered from the beginning of the work to the 31st March, 1870, by N. & J. Phelps, on contract work ordered by Letter No. 6225. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
	\$ cts.
Sawn oak, 7,102 feet., B.M., at \$16 per M.....	113 63
do pine, gate plank, 1,738 feet, B.M., at \$12.25 per M.....	21 72
do 2-inch pine plank, 1,692 feet, B.M., at \$10.50 per M.....	17 76
	153 11

NUMBER of Estimate, 1139. Date of contract, 18th April, 1863. Number of contract, 2589. Final estimate of work done and materials delivered from the beginning of the work to the 31st March, 1870, by P. & J. Phelps, on contract work ordered by Letter No. 6225. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
Furnishing and forging iron screw bolts, &c., 2,743 lbs., at 7 cts.....	\$ cts. 192 01
do do plates, bands, &c., 817 lbs., at 6 cts.....	49 02
do do rag bolts, &c., 718 lbs., at 4½ cts.....	32 31
Forging iron screw bolts, &c., 1,178½ lbs., at 4 cts.....	47 14
do plates, bands, &c., 2,124 lbs., at 3 cts.....	63 72
do suspension bars, &c., 2,380 lbs., at 2 cts.....	47 60
do rag bolts, 263 lbs., at 1½ cts.....	3 95
	435 75

NUMBER of Estimate, 1140. Date of contract, 20th April, 1863. Number of contract, 2,580. Final estimate of work done and materials delivered from the beginning of the work to the 1st April, 1870, by Yale & Co., on contract work ordered by Letter No. 6225. The works, the details of which are given in this Estimate, were proceeded with under the order of the Department of Railways and Canals, authorizing an expenditure of \$20,000 to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
Castings, 4,279½ lbs., at 4 cts.....	\$ cts. 171 18
Wrought iron, 332 lbs., at 10 cts.....	33 20
Brass, 43½ lbs., at 40 cts.....	17 40
Complete, 4 lbs., at \$6.....	24 00
Valve pins, boxes and keys, 12 lbs., at \$2.50.....	30 00
Fitting old valve, 6 lbs., at \$5.....	30 00
Drilling bars, 6 lbs., at \$1.50.....	9 00
Repairs, crab and roller, \$6; freight on castings, 80 cts.....	6 80
	321 58

NUMBER of Estimate, 1156. Final estimate of work done and materials delivered from the beginning of the work to the 30th June, 1870, by Joseph Fegan. The works, the details of which are given in this estimate, were proceeded with under the order of the Department of Railways and Canals, to Repairs, Welland Canal.

Description of Works and Materials.	Amount.
Gravel delivered in embankments, 360 cubic yards at 50 cts.....	180 00
Clay do do 720 do at 25 cts.....	180 00
	360 00



## WELLAND CANAL.

**VOUCHERS**—1. Staff and Working Expenses. 2. Repairs.—1st July, 1886, to 30th June, 1887.

**PAY-LIST** in duplicate of persons employed on the Old Welland Feeder and New Welland Canal, during the year ending 30th June, 1887, to Pay House Allowances, chargeable to Staff and Working Expenses.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.	Superannuation.
Lock 1.....	July 1, 1886, to June 30, 1887.	Saml. Duffin .....	1 year...	\$ cts. 50 00	\$ cts. 50 00	cts. 63
do 1.....	do	Wm. L. Smith.....	1 do ...	50 00	50 00	63
do 1.....	do	Robt. Edgraft.....	1 do ...	50 00	50 00	63
do 1.....	do	John House.....	1 do ...	50 00	50 00	.....
do 2.....	do	Walter Weaver.....	1 do ...	50 00	50 00	over 35 yrs
do 2.....	do	J. Johnson.....	1 do ...	50 00	50 00	63
St. Paul St. Bridge.....	do	T. Sullivan.....	1 do ...	50 00	50 00	63
Lock 3.....	do	Fred. Sherer.....	1 do ...	50 00	50 00	63
do 5, 6 and 7.....	do	Robt. Boyle.....	1 do ...	50 00	50 00	63
do do .....	do	Michael White.....	1 do ...	50 00	50 00	63
Keefer Bridge.....	do	A. W. Bradley.....	1 do ...	50 00	50 00	63
Lock 25.....	do	Jno. Flunllyn.....	1 do ...	60 00	60 00	.....
Hurst Bridge.....	do	Jacob Renter.....	1 do ...	50 00	50 00	63
Marlatt's Bridge.....	do	Nelson Higgins.....	1 do ...	50 00	50 00	63
Allanburgh Lock.....	do	Wm. Higgins.....	1 do ...	60 00	60 00	over 35 yrs
do .....	do	Lewis Mosier.....	1 do ...	50 00	50 00	63
Allanburgh Gd. Lock.....	do	Aaron Higgins.....	1 do ...	60 00	60 00	over 35 yrs
Foreman on Banks.....	do	John Gearin.....	1 do ...	50 00	50 00	63
<i>Feeder Division.</i>						
Stromness Bridge.....	do	Geo. Harris.....	1 do ...	50 00	50 00	63
Reg. of water opp. Dunnville.....	do	Chas. Trush.....	1 do ...	60 00	60 00	.....
<i>New Welland Canal.</i>						
Port Colborne, Hurst.....	do	C. H. Carter.....	1 do ...	100 00	100 00	\$2 00
do Lock.....	do	Jno. Stevens.....	1 do ...	50 00	50 00	63
do Ferry, &c....	do	Jno. Bradley.....	1 do ...	50 00	50 00	63
					1,240 00	1,208 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal during the Season of Navigation, to pay Season Allowances, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
Checking passes, keeping record of vessels passing through, towing tugs and steamers from Lock 7 to 8.....	Season of navig'n.	C. B. Hare .....	1 season....	60 00	60 00
do do .....	do	Wm. Boyle.....	1 do ..	40 00	40 00
Towing tugs and steamers from Lock 8 to 7 .....	do	N. Hayden .....	1 do ..	25 00	25 00
do do .....	do	R. Secord.....	1 do ..	20 00	20 00
do Lock 25.....	do	M. McCarthy.....	1 do ..	25 00	25 00
do do .....	do	Sam. Campbell.....	1 do ..	20 00	20 00
do Port Colborne...	do	John Henshaw.....	1 do ..	30 00	30 00
do do .....	do	John Cook.....	1 do ..	30 00	30 00
Checking passes, keeping record of vessels passing through Lock 1.....	do	Sam. Duffin.....	1 do ..	30 00	30 00
do do .....	do	Robt. Egraff .....	1 do ..	15 00	15 00
do Lock 25.....	do	John Fluellyon.....	1 do ..	20 00	20 00
					315 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal during the month of July, 1886, to pay Permanent Establishments and Account, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Superintendent .....	July, 1886	Wm. Ellis .....	1 month....	2,900 00	241 67
Paymaster. ....	do	R. D. Dun .....	1 do ..	1,400 00	116 67
Accountant .....	do	J. E. Lawrence.....	1 do ..	1,000 00	83 33
Harbor masters—					
Port Dalhousie.....	do	Wm. Cooke.....	1 do ..	750 00	62 50
Port Colborne.....	do	C. H. Carter.....	1 do ..	750 00	62 50
Overseers—					
Division No. 1.....	do	J. G. Demare .....	1 do ..	100 00	100 00
do 2.....	do	James Dell.....	1 do ..	75 00	75 00
do 3.....	do	A. Hamelton.....	1 do ..	50 00	50 00
do 4.....	do	Thos. R. Secord.....	1 do ..	65 00	65 00
Storekeeper, &c.....	do	W. W. Wait.....	1 do ..	65 00	65 00
Messenger, &c.....	do	Thos. J. Hartley.....	31 days....	1 25	38 75
In charge of iron and steel bridges, also steam pump, &c.....	do	W. Chatfield .....	1 month....	75 00	75 00
<i>Division No. 1.</i>					
Port Dalhousie Ferry.....	do	Frank Smith.....	27 days....	1 40	37 80
Master, Lock 1.....	do	J. M. Woodall.....	1 month....	42 00	42 00
Assistant.....	do	George Howe.....	do ..	45 00	45 00
do .....	do	John Paxton .....	do ..	45 00	45 00
do .....	do	Thomas Williams.....	do ..	45 00	45 00
Master, Bridge 1.....	do	Frank Darby.....	do ..	45 00	45 00
Assistant.....	do	Phil Ohneath.....	do ..	45 00	45 00
Master, Lock 2.....	do	Alp. Kelly.....	do ..	47 00	47 00
Assistant.....	do	Geo. Bowman.....	do ..	45 00	45 00
do .....	do	B. Merritt.....	do ..	45 00	45 00
do .....	do	Richard Hutton.....	do ..	45 00	45 00

## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 1—Con.</i>				\$ cts.	\$ cts.
Master, Lock 3.....	July, 1886	J. Johnston.....	1 month...	47 00	47 00
Assistant.....	do	John Wilde.....	do	45 00	45 00
do.....	do	Con. Gorman.....	do	45 00	45 00
do.....	do	James Grogan.....	do	45 00	45 00
Master, Bridge 2.....	do	John Flynn.....	do	45 00	45 00
Assistant.....	do	Hugh Alexander.....	do	45 00	45 00
Master, Lock 4.....	do	Joseph Franklin.....	do	47 00	47 00
Assistant.....	do	Samuel Hopkins.....	do	45 00	45 00
do.....	do	William Altoff.....	do	45 00	45 00
do.....	do	John Woodall.....	do	45 00	45 00
Master, Lock 5.....	do	Thomas Scott.....	do	47 00	47 00
Assistant.....	do	John Pennington.....	do	45 00	45 00
do.....	do	Thomas Jones.....	do	45 00	45 00
do.....	do	James Keyes.....	do	45 00	45 00
Master, Bridge 3.....	do	George Brownlee.....	do	45 00	45 00
Assistant.....	do	Michael Morarity.....	do	45 00	45 00
Master, Lock 6.....	do	Peter Paxton.....	do	47 00	47 00
Assistant.....	do	John Daley.....	do	45 00	45 00
do.....	do	Chas. Sabine.....	do	45 00	45 00
do.....	do	Chas. Newbold.....	do	45 00	45 00
Master, Bridge 5.....	do	William Elliott.....	do	45 00	45 00
Assistant.....	do	George Spooner.....	do	45 00	45 00
Master, Lock 7.....	do	C. B. Hare.....	do	47 00	47 00
Assistant.....	do	Michael Sullivan.....	do	45 00	45 00
do.....	do	William Boyle.....	do	45 00	45 00
do.....	do	Richard Freeman.....	do	45 00	45 00
Master, Bridge 6.....	do	James Grant.....	do	45 00	45 00
Assistant.....	do	Alex. Stewart.....	do	45 00	45 00
Master, Lock 8.....	do	Nicholas Hayden.....	do	47 00	47 00
Assistant.....	do	William Reid.....	do	45 00	45 00
do.....	do	Robt. Secord.....	do	45 00	45 00
do.....	do	M. McCormick.....	do	45 00	45 00
Master, Lock 9.....	do	R. H. Watson.....	do	47 00	47 00
Assistant.....	do	Alex. Soper.....	do	45 00	45 00
do.....	do	Jos. C. Longly.....	do	45 00	45 00
do.....	do	Alex. Bradt.....	do	45 00	45 00
Master, Bridge 7.....	do	James Whitter.....	do	45 00	45 00
Assistant.....	do	Jno. Y. Cushman.....	do	45 00	45 00
Master, Lock 10.....	do	James Bradley.....	1 do	47 00	47 00
Assistant.....	do	James Mulvey.....	1 do	45 00	45 00
do.....	do	Henry Hare.....	1 do	45 00	45 00
do.....	do	Thomas Wilson.....	1 do	45 00	45 00
Master, Bridge 8.....	do	Arthur Cain.....	1 do	45 00	45 00
Assistant.....	do	John McGeachie.....	1 do	45 00	45 00
Master, Lock 11.....	do	James Reynolds.....	1 do	47 00	47 00
Assistant.....	do	Alex. Wilson.....	1 do	45 00	45 00
do.....	do	James Webster.....	1 do	45 00	45 00
do.....	do	W. P. Burleigh.....	1 do	45 00	45 00
Master, Lock 12.....	do	William Strong.....	1 do	47 00	47 00
Assistant.....	do	E. Bradley.....	1 do	45 00	45 00
do.....	do	F. Mughan.....	1 do	45 00	45 00
do.....	do	James McBride.....	1 do	45 00	45 00
Master, Lock 13.....	do	Thos. Keating.....	1 do	47 00	47 00
Assistant.....	do	Joseph Turner.....	1 do	45 00	45 00
do.....	do	Jas. A. Bradley.....	1 do	45 00	45 00
do.....	do	Geo. Milliward.....	1 do	45 00	45 00
<i>Division No. 2.</i>					
Master, Bridge 9.....	July, 1886	John Clarke.....	1 month...	45 00	45 00
Assistant.....	do	John Black.....	1 do	45 00	45 00
Master, Lock 14.....	do	Con. Nestor.....	1 do	47 00	47 00
Assistant.....	do	Jas. Winton.....	1 do	45 00	45 00
do.....	do	John Strong.....	1 do	45 00	45 00



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continue 7.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 2—Con.</i>				\$ cts.	\$ cts.
Assistant.....	July, 1886	Thomas Flynn.....	1 month...	45 00	45 00
Master, Lock 15.....	do	Thomas Aikens.....	1 do	47 00	47 00
Assistant.....	do	Jas. McAubey.....	1 do	45 00	45 00
do	do	W. J. Wilson.....	1 do	45 00	45 00
do	do	Robert Boyle.....	1 do	45 00	45 00
Master, Lock 16.....	do	Thos. Berley.....	1 do	47 00	47 00
Assistant.....	do	Sam. Bradley.....	1 do	45 00	45 00
do	do	Austin Moran.....	1 do	45 00	45 00
do	do	John Holland.....	1 do	45 00	45 00
Master, Lock 17.....	do	Mich. Coody.....	1 do	47 00	47 00
Assistant.....	do	J. Sherman.....	1 do	45 00	45 00
do	do	Michael Dooher.....	1 do	45 00	45 00
do	do	Michael Glynn.....	1 do	45 00	45 00
Master, Lock 18.....	do	James Pierson.....	1 do	47 00	47 00
Assistant.....	do	George Newton.....	1 do	45 00	45 00
do	do	Thomas Hanna.....	1 do	45 00	45 00
do	do	Joseph Cook.....	1 do	45 00	45 00
Master, Lock 19.....	do	Robert Grisdale.....	1 do	47 00	47 00
Assistant.....	do	Fred. Johnson.....	1 do	45 00	45 00
do	do	J. J. Duffy.....	1 do	45 00	45 00
do	d2	Fred. Hoshcke.....	1 do	45 00	45 00
Master, Lock 20.....	do	Jacob Renter.....	1 do	47 00	47 00
Assistant.....	do	Isaac McMann.....	1 do	45 00	45 00
do	do	Thomas Freel.....	1 do	45 00	45 00
do	do	John Collins.....	1 do	45 00	45 00
Master, Lock 21.....	do	F. C. Berrimen.....	1 do	47 00	47 00
Assistant.....	do	John Cole.....	1 do	45 00	45 00
do	do	Adelbert Clarke.....	1 do	45 00	45 00
do	do	James Ellis.....	1 do	45 00	45 00
Master, Lock 22.....	do	Wm. Hannah.....	1 do	47 00	47 00
Assistant.....	do	William Boyle.....	1 do	45 00	45 00
do	do	P. McNamara.....	1 do	45 00	45 00
do	do	Henry Phillips.....	1 do	45 00	45 00
Master, Lock 23.....	do	Thos. Bonewell.....	1 do	47 00	47 00
Assistant.....	do	Jas. Smerdon.....	1 do	45 00	45 00
do	do	Jno. Corbett.....	1 do	45 00	45 00
do	do	T. Commarford.....	1 do	45 00	45 00
Master, Lock 24.....	do	R. Campbell.....	1 do	47 00	47 00
Assistant.....	do	M. Henderson.....	1 do	45 00	45 00
do	do	Thomas Bradley.....	1 do	45 00	45 00
do	do	Henry Kern.....	1 do	45 00	45 00
Master, Bridge 10.....	do	Wm. Fleming.....	1 do	45 00	45 00
Assistant.....	do	F. Galbraith.....	1 do	45 00	45 00
Master, Lock 25.....	do	M. McCarthy.....	1 do	47 00	47 00
Assistant.....	do	Geo. Detlor.....	1 do	45 00	45 00
do	do	Samuel Campbell.....	1 do	45 00	45 00
do	do	Robt. Wright.....	1 do	45 00	45 00
Master, Bridge 12.....	do	G. W. A. Thomas.....	1 do	45 00	45 00
Assistant.....	do	Robt. Camp.....	1 do	45 00	45 00
Master, Guard Lock.....	do	C. H. Collier.....	1 do	42 00	42 00
Assistant.....	do	Samuel Fraser.....	1 do	45 00	45 00
do	do	Fred. Lay.....	1 do	45 00	45 00
do	do	James Cook.....	1 do	45 00	45 00
Master, Bridge 13.....	do	Richard Higgins.....	1 do	45 00	45 00
Assistant.....	do	William Upper.....	1 do	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14.....	July, 1886	Daniel O'Leary.....	1 month...	45 00	45 00
Assistant.....	do	Geo. A. Upper.....	1 do	40 00	40 00
Master, Bridge 15.....	do	Bart. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	Geo. Thompson.....	1 do	45 00	45 00
Port Robinson Ferry.....	do	R. Stevenson.....	1 do	30 00	30 00
do Lock.....	do	James McCoppin.....	1 do	47 00	47 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 3—Con.</i>				\$ cts.	\$ cts.
Assistant.....	July, 1886	James Walsh.....	1 month...	45 00	45 00
Master, Bridge 16.....	do ...	James Edmonds.....	1 do ...	45 00	45 00
Assistant.....	do ...	Geo. P. Misner.....	1 do ...	45 00	45 00
<i>Division No. 4.</i>					
Welland Lock .....	July, 1886	William Wilson.....	1 month...	45 00	45 00
Master, Bridge 17.....	do ...	James Foster.....	1 do ...	45 00	45 00
Assistant.....	do ...	L. J. Brennan.....	1 do ...	45 00	45 00
Master, Bridge 19.....	do ...	Chas. Hannah.....	1 do ...	45 00	45 00
Assistant.....	do ...	Alex. Hannah.....	1 do ...	45 00	45 00
Humberstone Ferry.....	do ...	Michael Traynor.....	1 do ...	30 00	30 00
Master, Bridge 21.....	do ...	E. Bonaberg.....	1 do ...	45 00	45 00
Assistant.....	do ...	Isaac Shisler.....	1 do ...	45 00	45 00
Port Colborne Lock and Bridge...	do ...	John Henshaw.....	1 do ...	42 00	42 00
do do ...	do ...	John Cook.....	1 do ...	42 00	42 00
do do ...	do ...	John Stevens.....	1 do ...	42 00	42 00
do do ...	do ...	Wm. Aiken.....	1 do ...	42 00	42 00
do do ...	do ...	Jas. Dunlap.....	1 do ...	42 00	42 00
do Ferry.....	do ...	John Bradley.....	1 do ...	42 00	42 00
Helping Ferryman.....	do ...	E. Bradley .....	4 days...	1 25	5 00
Signalling and controlling safe	do ...	Jos. McMurray .....	31 do ...	1 50	46 50
passage of vessels through	do ...	Jas. Nixon.....	31 do ...	1 50	46 50
Old Aqueduct at Welland	do ...	Wm. Nixon.....	31 do ...	1 50	46 50
night and day .....	do ...	Robert Simpson.....	31 do ...	1 50	46 50
<b>MACHINIST.</b>					
<i>Division No. 1.</i>					
Keeping machinery connected	July, 1886	John Marshall.....	26½ days...	2 25	59 63
with Lock Gates and Waste	do ...	Samuel Houston.....	23 do ...	2 00	46 00
weirs in proper order through-	do ...	E. Newall, H. & Wg..	27 do ...	1 50	40 50
out, &c., &c .....					
<i>Division No. 2.</i>					
Keeping machinery connected	July, 1886	*Volney Mann.....	33 days...		66 00
with Lock Gates and Waste	do ...	*Thos. Ryan.....	31½ do ...		55 12
weirs in proper order through-	do ...	*J. H. Booth, H & W.	30 do ...		45 00
out, &c., &c .....					
Diver.....	do ...	Ed. Smiley.....	21 do ...		42 00
					8,314 47

\* Extra time for Sunday and night work.

## ACCOUNTS Chargeable to Welland Canal Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total
1886.		\$ cts.	\$ cts.
July 31.....	To G. N. W. Telegraph Co., St. Catharines—Telegrams for month.....		7 57
April 6.....	To the "Mail" Printing Co., Toronto—Advertising opening canals.....		3 50
July 31.....	To St. Catharines and Welland Canal Gas Light Co., St. Catharines—Instalment on contract for lighting new Welland Canal.....		5,000 00
do 31.....	To William Chelten, St. Catharines—175 galls. American coal oil, at 23c.....		40 25
do 31.....	To W. N. Garden, Welland— 26 gals. American coal oil..... 1 box matches.....	7 80 0 13	7 93
do 31.....	To John Mathews, Port Colborne—13 gals. coal oil (American) at 30c.....		3 90
Feb. 27.....	To Henry Carlisle & Co., St. Catharines— 11 window blind rollers, at 45c..... Tassels and cord for same.....	4 95 1 53	
Mar. 12.....	32 yards matting, at \$1.50..... Laying 32 yards matting, at 10c..... 20 yards binding..... 1 cord for bell pull.....	48 00 3 20 1 00 0 56	59 24
July 31.....	To Bell Telephone Co., Welland—Conversations and messages for month.....		3 30
1885.			
May 7.....	To J. B. Fowler, St. Catharines—		
do 7.....	Repairing clocks, Lock 7 and 8.....	1 50	
June 15.....	do watchman's clock.....	1 00	
1886.			
June 1.....	do canal office do.....	2 00	
do 1.....	1 clock, Port Dalhousie.....	6 00	10 50
July 12.....	To E. B. Near, Port Colborne—1 clock for Port Colborne ferry.....		3 00
do 31.....	To A. Thompson, Welland—4½ weeks' board and lodging for C. H. Carter in charge of old aqueduct, Welland, \$4.....		17 71
do 31.....	To W. W. Wait, St. Catharines—Use of horse and waggon for delivering stores and oil along line canal.....		20 00
do 31.....	To Grand Trunk Railway Co., St. Catharines—8 bridge tenders to wages, St. Catharines and Thorold, 1 month, at \$45.....		360 00
do 31.....	To Journal Printing Co., St. Catharines—Advertising lists of vessels passing through new canal.....		14 40
do 19.....	To R. D. Dunn, P.M., St. Catharines—		
do 19.....	Horse and buggy, 1 day, Port Dalhousie to Thorold.....	2 50	
do 19.....	Hotel bill, assistant and horse feed.....	1 00	
do 19.....	Paid damages to buggy (accident).....	0 50	
do 20.....	Horse and buggy, Allanburgh and Port Robinson, 1 day.....	2 50	
do 20.....	Hotel bill, assistant, and horse feed.....	1 00	
do 21.....	Railway fare, Welland, repairs, 90c.; hack hire, 75c.....	1 65	
do 23.....	do Port Colborne.....	2 50	
do 23.....	Hack hire.....	0 50	
do 23.....	3 days' board for self, out on duty.....	9 00	21 15
	Total.....		5,572 45



**PAY LIST** in duplicate of persons employed on the Old Welland and Feeder Canal, during the month of July, 1886, to pay permanent establishment chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
Overseer .....	July .....	J. B. Smith.....	1 month...	100 00	100 00
Master, lock 1 and bridge.....	do .....	Samuel Duffin .....	do .....	42 00	42 00
Assistant.....	do .....	Wm. L. Smith.....	do .....	42 00	42 00
do .....	do .....	R. Edgraft .....	do .....	42 00	42 00
do .....	do .....	John House .....	do .....	42 00	42 00
Master, lock 2 and bridge.....	do .....	Walter Weaver .....	do .....	42 00	42 00
Assistant.....	do .....	J. Johnson .....	do .....	42 00	42 00
do .....	do .....	H. Charles .....	do .....	42 00	42 00
do .....	do .....	John Sullivan .....	do .....	42 00	42 00
Master, St. Paul Street Bridge...	do .....	Wm. McClory .....	do .....	38 00	38 00
Assistant .....	do .....	T. Sullivan .....	do .....	38 00	38 00
Master, lock 3 .....	do .....	Alex. Walter .....	do .....	38 00	38 00
Assistant.....	do .....	Fred. Sherer.....	do .....	38 00	38 00
Master lock 4 and bridge.....	do .....	James Livingston.....	do .....	42 00	42 00
Assistant.....	do .....	James Boyle.....	do .....	42 00	42 00
Master, locks 5, 6, 7, and bridge...	do .....	Robert Boyle .....	do .....	42 00	42 00
Assistant.....	do .....	Michael White.....	do .....	42 00	42 00
Master, locks 8, 9, 10 and 11.....	do .....	B. Clarke.....	do .....	38 00	38 00
Assistant .....	do .....	C. W. Bradley.....	do .....	38 00	38 00
Master, locks 12, 13, 14, 15 and bridge .....	do .....	James Cogan.....	do .....	38 00	38 00
Assistant.....	do .....	Martin Westor .....	do .....	38 00	38 00
Master, locks 16, 17 and 18.....	do .....	B. Darby.....	do .....	38 00	38 00
Assistant.....	do .....	Robert Gibson.....	do .....	38 00	38 00
Master, locks 19, 20, 21.....	do .....	E. McLaughlin.....	do .....	38 00	38 00
Assistant.....	do .....	Robert Bradley.....	do .....	38 00	38 00
Master, lock 22 and Keefer bridge	do .....	John McNamara .....	do .....	38 00	38 00
Assistant.....	do .....	A. W. Bradley.....	do .....	38 00	38 00
Master, locks 23, 24 and bridge...	do .....	John Neil .....	do .....	42 00	42 00
Assistant.....	do .....	D. Ryckman.....	do .....	38 00	38 00
Master, lock 25 and guard lock...	do .....	John Flunllym .....	do .....	38 00	38 00
Assistant.....	do .....	Rufus Swazie .....	do .....	38 00	38 00
Hurst's bridge. ....	do .....	Jacob Renter .....	do .....	38 00	38 00
Marlatt's do .....	do .....	Nelson Higgins.....	do .....	38 00	38 00
Allanburgh bridge.....	do .....	A. H. Upper.....	do .....	38 00	38 00
Allanburgh lock.....	do .....	Wm. Higgins.....	do .....	38 00	38 00
Assistants .....	do .....	Lewis Mosier .....	do .....	38 00	38 00
Allanburgh guard lock.....	do .....	Aaron Higgins .....	do .....	38 00	38 00
Assistant.....	do .....	Oscar Upper.....	do .....	38 00	38 00
Foreman on banks.....	do .....	John Gearin.....	do .....	38 00	38 00
Feeder division overseer.....	do .....	John E. Scott.....	do .....	66 67	66 67
Junction lock.....	do .....	G. Hannah .....	do .....	38 00	38 00
Feeder Flout bridge.....	do .....	John Henderson.....	do .....	10 00	10 00
Stromness bridge.....	do .....	Geo Harris .....	do .....	38 00	38 00
Port Maitland lock .....	do .....	Michael Corcoran.....	do .....	38 00	38 00
Assistant.....	do .....	Wm. Brennan.....	do .....	38 00	38 00
Regulating of water, &c .....	do .....	Chas. Trush.....	do .....	38 00	38 00
					1,862 67

**ACCOUNTS** chargeable to Old Welland and Feeder Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1886.	To Dunnville Electric Light Company, Dunnville:—		
July 31 .....	31 lightings, lamp, new bridge, at 12½ cts.....	3 88	
	4 do old do gd. lock .....	0 50	
	Total.....		4 38

PAY-LIST in duplicate of persons employed on the Welland Canal, during the month of August, 1886, to pay permanent establishment and accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names,	Time.	Rate.	Amount.
	1886.			\$	\$ cts.
Superintendent .....	August....	William Ellis.....	1 month...	2,900 p. a.	241 67
Paymaster .....	do .....	Richard D. Dunn....	1 do .....	1,400 do	116 67
Accountant .....	do .....	Jas. E. Lawrence....	1 do .....	1,000 do	83 33
Harbor Master—Port Dalhousie...	do .....	William Cook.....	1 do .....	750 do	62 50
do Port Colborne .....	do .....	Chas. H. Carter.....	1 do .....	750 do	62 50
Overseer—Division No. 1.....	do .....	J. G. Demare.....	1 do .....	100 p. m.	100 00
do do No. 2.....	do .....	James Dell.....	1 do .....	75 do	75 00
do do No. 3.....	do .....	A. Hamilton.....	1 do .....	50 do	50 00
do do No. 4.....	do .....	Thos. R. Secord.....	1 do .....	65 do	65 00
Storekeeper, &c.....	do .....	W. W. Wait .....	1 do .....	65 do	65 00
Messenger, &c.....	do .....	Thos. J. Hartley....	31 days....	1.25 p. d.	38 75
In charge of iron and steel bridges, also steam pump.....	do .....	W. Chatfield.....	1 month...	75 p. m.	75 00
<i>Division No. 1.</i>	1886.			\$ cts.	[ \$ cts.
Port Dalhousie Ferry.....	August....	Frank Smith.....	26 days....	1 40	36 40
Master, Lock 1.....	do .....	J. M. Woodall.....	1 month...	42 00	42 00
Assistant.....	do .....	Geo. Howe.....	1 do .....	45 00	45 00
do .....	do .....	John Poxton.....	1 do .....	45 00	45 00
do .....	do .....	Thos. Williams.....	1 do .....	45 00	45 00
Master, Bridge 1.....	do .....	Frank Darby.....	1 do .....	45 00	45 00
Assistant.....	do .....	Phillip Olmeth.....	1 do .....	45 00	45 00
Master, Lock 2.....	do .....	Alph. Kelley.....	1 do .....	47 00	47 00
Assistant.....	do .....	Richard Hutton....	1 do .....	45 00	45 00
do .....	do .....	Burwill Merritt....	1 do .....	45 00	45 00
do .....	do .....	Geo. Bowman.....	1 do .....	45 00	45 00
Master, Lock 3.....	do .....	J. Johnson.....	1 do .....	47 00	47 00
Assistant.....	do .....	James Keys.....	1 do .....	45 00	45 00
do .....	do .....	Con. Gorman.....	1 do .....	45 00	45 00
do .....	do .....	James Grogan.....	1 do .....	45 00	45 00
Master, Bridge 2.....	do .....	John Flynn.....	1 do .....	45 00	45 00
Assistant.....	do .....	Hugh Alexander....	1 do .....	45 00	45 00
Master, Lock 4.....	do .....	Jos. Franklin.....	1 do .....	47 00	47 00
Assistant.....	do .....	Samuel Hopkins....	1 do .....	45 00	45 00
do .....	do .....	Jno. Woodall.....	1 do .....	45 00	45 00
do .....	do .....	Wm. Altoft.....	1 do .....	45 00	45 00
Master, Lock 5.....	do .....	Thomas Scott.....	1 do .....	47 00	47 00
Assistant.....	do .....	Jno. Pennington....	1 do .....	45 00	45 00
do .....	do .....	Thomas Jones.....	1 do .....	45 00	45 00
do .....	do .....	John Wilde.....	1 do .....	45 00	45 00
Master, Bridge 3.....	do .....	Geo. Brownen.....	1 do .....	45 00	45 00
Assistant.....	do .....	M. Morarity.....	1 do .....	45 00	45 00
Master, Lock 6.....	do .....	Peter Poxton.....	1 do .....	47 00	47 00
Assistant.....	do .....	John Daley.....	1 do .....	45 00	45 00
do .....	do .....	Chas. Newbold.....	1 do .....	45 00	45 00
do .....	do .....	Chas. Sabine.....	1 do .....	45 00	45 00
Master, Bridge 5.....	do .....	Wm. Elliott.....	1 do .....	45 00	45 00
Assistant.....	do .....	Geo. Spooner.....	1 do .....	45 00	45 00
Master, Lock 7.....	do .....	C. B. Hare.....	1 do .....	47 00	47 00
Assistant.....	do .....	M. Sullivan.....	1 do .....	45 00	45 00
do .....	do .....	Wm. Boyle.....	1 do .....	45 00	45 00
do .....	do .....	R. Freeman.....	1 do .....	45 00	45 00
Master, Bridge 6.....	do .....	James Grant.....	1 do .....	45 00	45 00
Assistant.....	do .....	Alex. Stewart.....	1 do .....	45 00	45 00
Master, Lock 8.....	do .....	Michael Hayden....	1 do .....	47 00	47 00
Assistant.....	do .....	Wm. Reid.....	1 do .....	45 00	45 00
do .....	do .....	Robt. Secord.....	1 do .....	45 00	45 00
do .....	do .....	M. McCormick.....	1 do .....	45 00	45 00
Master, Lock 9.....	do .....	R. H. Watson.....	1 do .....	47 00	47 00
Assistant.....	do .....	Alex. Soper.....	1 do .....	45 00	45 00
do .....	do .....	Jas. C. Longley....	1 do .....	45 00	45 00
do .....	do .....	Alex. Bradt.....	1 do .....	45 00	45 00
Master, Bridge 7.....	do .....	James Whitten.....	1 do .....	45 00	45 00
Assistant.....	do .....	J. Cushman.....	1 do .....	45 00	45 00



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 1—Con.</i>	1886.			\$ cts.	\$ cts.
Master, Lock 10.....	August....	James Bradley.....	1 month...	47 00	47 00
Assistant.....	do .....	James Mulvey.....	1 do ...	45 00	45 00
do .....	do .....	Henry Hare.....	1 do ...	45 00	45 00
do .....	do .....	Thos. Nelson.....	1 do ...	45 00	45 00
Master, Bridge 8.....	do .....	Arthur Cain.....	1 do ...	45 00	45 00
Assistant.....	do .....	John McGeachie.....	1 do ...	45 00	45 00
Master, Lock 11.....	do .....	James Reynolds.....	1 do ...	47 00	47 00
Assistant.....	do .....	Alex. Wilson.....	1 do ...	45 00	45 00
do .....	do .....	James Webster.....	1 do ...	45 00	45 00
do .....	do .....	W. P. Burleigh.....	1 do ...	45 00	45 00
Master, Lock 12.....	do .....	Wm. Strong.....	1 do ...	47 00	47 00
Assistant.....	do .....	E. Bradley.....	1 do ...	45 00	45 00
do .....	do .....	Frank Meighan.....	1 do ...	45 00	45 00
do .....	do .....	James McBride.....	1 do ...	45 00	45 00
Master, Lock 13.....	do .....	Thomas Keating.....	1 do ...	47 00	47 00
Assistant.....	do .....	Joseph Turner.....	1 do ...	45 00	45 00
do .....	do .....	James A. Bradley.....	1 do ...	45 00	45 00
do .....	do .....	George Millward.....	1 do ...	45 00	45 00
<i>Division No. 2.</i>					
Master, Bridge 9.....	do .....	John Black.....	1 do ...	45 00	45 00
Assistant.....	do .....	John Clark.....	1 do ...	45 00	45 00
Master, Lock 14.....	do .....	Con. Nestor.....	1 do ...	47 00	47 00
Assistant.....	do .....	James Winton.....	1 do ...	45 00	45 00
do .....	do .....	John Strong.....	1 do ...	45 00	45 00
do .....	do .....	Thomas Flynn.....	1 do ...	45 00	45 00
Master, Lock 15.....	do .....	Thomas Aikins.....	1 do ...	47 00	47 00
Assistant.....	do .....	James McAuley.....	1 do ...	45 00	45 00
do .....	do .....	W. J. Wilson.....	1 do ...	45 00	45 00
do .....	do .....	Robert Boyle.....	1 do ...	45 00	45 00
Master, Lock 16.....	do .....	Thomas Burley.....	1 do ...	47 00	47 00
Assistant.....	do .....	Saml. Bradley.....	1 do ...	45 00	45 00
do .....	do .....	John Holland.....	1 do ...	45 00	45 00
do .....	do .....	Austin Moran.....	1 do ...	45 00	45 00
Master, Lock 17.....	do .....	Michael Cody.....	1 do ...	47 00	47 00
Assistant.....	do .....	F. Shuman.....	1 do ...	45 00	45 00
do .....	do .....	Michael Dodher.....	1 do ...	45 00	45 00
do .....	do .....	Michael Glynn.....	1 do ...	45 00	45 00
Master, Lock 18.....	do .....	J. S. Pearson.....	1 do ...	47 00	47 00
Assistant.....	do .....	Geo. Newton.....	1 do ...	45 00	45 00
do .....	do .....	Thomas Hanna.....	1 do ...	45 00	45 00
do .....	do .....	Joseph Cook.....	1 do ...	45 00	45 00
Master, Lock 19.....	do .....	R. Grisdale.....	1 do ...	47 00	47 00
Assistant.....	do .....	F. Johason.....	1 do ...	45 00	45 00
do .....	do .....	J. J. Duffy.....	1 do ...	45 00	45 00
do .....	do .....	Fred. Hoshcke.....	1 do ...	45 00	45 00
Master, Lock 20.....	do .....	Jacob Renter.....	1 do ...	47 00	47 00
Assistant.....	do .....	Isaac McMann.....	1 do ...	45 00	45 00
do .....	do .....	John Collins.....	1 do ...	45 00	45 00
do .....	do .....	Thomas Freel.....	1 do ...	45 00	45 00
Master, Lock 21.....	do .....	F. C. Berrimen.....	1 do ...	47 00	47 00
Assistant.....	do .....	John Cole.....	1 do ...	45 00	45 00
do .....	do .....	James Ellis.....	1 do ...	45 00	45 00
do .....	do .....	Adelbert Clarke.....	1 do ...	45 00	45 00
Master, Lock 22.....	do .....	Wm. Hannah.....	1 do ...	47 00	47 00
Assistant.....	do .....	Patrick McNamara.....	1 do ...	45 00	45 00
do .....	do .....	Wm. Boyle.....	1 do ...	45 00	45 00
do .....	do .....	Henry Phillips.....	1 do ...	45 00	45 00
Master, Lock 23.....	do .....	Thomas Bonewell.....	1 do ...	47 00	47 00
Assistant.....	do .....	James Smerdon.....	1 do ...	45 00	45 00
do .....	do .....	John Corbett.....	1 do ...	45 00	45 00
do .....	do .....	J. Commarford.....	1 do ...	45 00	45 00
Master, Lock 24.....	do .....	R. Campbell.....	1 do ...	47 00	47 00
Assistant.....	do .....	M. Henderson.....	1 do ...	45 00	45 00
do .....	do .....	Thos. Bradley.....	1 do ...	45 00	45 00
do .....	do .....	Henry Kerns.....	1 do ...	45 00	45 00



PAY LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Name...	Time.	Rate.	Amount.
<i>Division No. 2—Con.</i>	1886.			\$ cts.	\$ cts.
Master, Bridge 10.....	August ...	Wm. Fleming.....	1 month...	45 00	45 00
Assistant.....	do .....	Francis Galbraith.....	1 do ...	45 00	45 00
Master, Lock 25.....	do .....	M. McCarthy.....	1 do ...	47 00	47 00
Assistant.....	do .....	Geo. Detlor.....	1 do ...	45 00	45 00
do .....	do .....	Sam. Campbell.....	1 do ...	45 00	45 00
do .....	do .....	Robert Wright.....	1 do ...	45 00	45 00
Master, Bridge 12.....	do .....	Geo. A. Thomas.....	1 do ...	45 00	45 00
Assistant.....	do .....	Robert Camp.....	1 do ...	45 00	45 00
Master, Guard Lock .....	do .....	Chas. H. Collier.....	1 do ...	42 00	42 00
Assistant.....	do .....	Samuel Fraser.....	1 do ...	45 00	45 00
do .....	do .....	Fred. Lay.....	1 do ...	45 00	45 00
do .....	do .....	James Cook.....	1 do ...	45 00	45 00
Master, Bridge 13.....	do .....	Richard Higgins.....	1 do ...	45 00	45 00
Assistant.....	do .....	Wm. Upper.....	1 do ...	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14.....	do .....	Daniel O'Leary.....	1 do ...	45 00	45 00
Assistant .....	do .....	Geo. A. Upper.....	1 do ...	40 00	40 00
Master, Bridge 15.....	do .....	Bart. O'Leary.....	1 do ...	45 00	45 00
Assistant.....	do .....	Geo. Thompson.....	1 do ...	45 00	45 00
Port Robinson Ferry.....	do .....	R. Stevenson.....	1 do ...	30 00	30 00
do Lock.....	do .....	James McCoppin.....	1 do ...	47 00	47 00
Assistant.....	do .....	James Walsh.....	1 do ...	45 00	45 00
Master, Bridge 16 .....	do .....	James Edmonds.....	1 do ...	45 00	45 00
Assistant.....	do .....	Geo. P. Misner.....	1 do ...	45 00	45 00
Welland lock.....	do .....	William Wilson.....	1 do ...	45 00	45 00
Bridge 17.....	do .....	James Foster.....	1 do ...	45 00	45 00
Assistant .....	do .....	Luke J. Breneen.....	1 do ...	45 00	45 00
Bridge 19.....	do .....	Chas. Hannah.....	1 do ...	45 00	45 00
Assistant .....	do .....	Alex. Hannah.....	1 do ...	45 00	45 00
Humberstone Ferry.....	do .....	Michael Traynor.....	1 do ...	30 00	30 00
Bridge 21.....	do .....	E. Bonabery.....	1 do ...	45 00	45 00
Assistant.....	do .....	Isaac Shisler.....	1 do ...	45 00	45 00
Port Colborne lock and bridge..	do .....	John Henshaw.....	1 do ...	42 00	42 00
	do .....	John Cook.....	1 do ...	42 00	42 00
	do .....	John Stevens.....	1 do ...	42 00	42 00
do do .....	do .....	Wm. Aikins.....	1 do ...	42 00	42 00
do do .....	do .....	James Dunlap.....	1 do ...	42 00	42 00
Port Colborne Ferry .....	do .....	John Bradley.....	1 do ...	42 00	42 00
Assistant ferryman.....	do .....	E. Bradley.....	8 days...	1 25	10 00
Signalling and controlling safe passage of vessels.....	do .....	Joseph McMurray.....	31 do ...	1 50	46 50
Thorold aqueduct at Welland { night and day.....	do .....	Robert Simpson.....	31 do ...	1 50	46 50
	do .....	James Nixon.....	31 do ...	1 50	46 50
	do .....	William Nixon .....	31 do ...	1 50	46 50
MACHINIST.					
<i>Division No. 1.</i>					
Keeping machinery connected with lock-gate and waste weirs in proper order throughout.....	do .....	*J. Marshall.....	28½ do ...	2 25	63 56
	do .....	Samuel Houston.....	25½ do ...	2 00	51 00
	do .....	*E. Newall, H. & A.....	27 do ...	1 50	40 50
<i>Division No. 2.</i>					
Keeping machinery connected with lock-gate and waste weirs in proper order throughout.....	do .....	*Volney Mann.....	30 do ...	2 00	60 00
	do .....	*Thomas Ryan .....	29½ do ...	1 75	51 63
	do .....	*J. H. Booth, H. & W.....	29½ do ...	1 50	44 25
Diver .....	do .....	E. Smiley .....	24½ do ...	2 00	49 50
					8,324 26

\* Extra time for Sunday and night work.

## ACCOUNTS chargeable to Welland Canal Staff and Working Expenses.

Date.	Nature of Work.	\$	cts.	\$	cts.
1881.					
Aug. 1-31...	To G. N. W. Telegraph Co., St. Catharines—Telegrams for month.....			8	79
do 31...	G. N. W. Telegraph Co., Port Dalhousie—Telegrams for July and August.....			3	46
do 1-31...	Bell Telephone Co., Welland—Messages and conversations.....			4	10
do 1-31...	Bell Telephone Co., St. Catharines—Conversations and messages.....			1	25
do 1-31...	Journal Printing Co., St. Catharines—Advertising list of vessels passing through canal, 308 words, at 4c.....			12	32
do 31...	B. C. Fairfield, St. Catharines—Postage stamps for office, from July 1, 1886, to date.....			14	15
do 18...	William Chelen, St. Catharines—44 galls. coal oil, at 23c.....			10	12
do 1-31...	R. A. Abbey, Port Robinson— 14 galls. coal oil, at 30c.....	4	20		
	Chimney and wick.....	0	11		
				4	31
do 1-31...	John Mathews, Port Colborne— 22 galls. coal oil, at 30c.....	6	60		
	1 gall. lard oil.....	1	00		
				7	60
do 1-31...	W. N. Garden, Welland— 34 galls. coal oil, at 30c., \$10.20; 2 boxes matches, 26c... 3 brooms, 75c.; 2 galls. lard oil, \$1.60; wick, 8c.....	10	46		
		2	43		
				12	89
Aug. 27...	To W. T. Sawle, Welland—600 clearance cheques.....			4	50
do 1-31...	Grand Trunk Railway Co., St. Catharines, 8 railway bridge tenders' wages for railway bridge across canal, 1 mo. each, at \$45.....			360	00
do 1-31...	A. Thompson, Welland—4½ weeks board and lodging for C. H. Charles, in charge of old aqueduct at Welland, at \$4.....			17	71
do 1-31...	W. W. Wait, St. Catharines—Use of horse and waggon, delivering stores, &c., along canal.....			20	00
	R. D. Dunn, Paymaster, St. Catharines— Horse and buggy 1 day.....	2	50		
do 18...	do \$2.50; expenses, asst. and horse feed....	3	50		
do 19...					
do 20...	Railway fare, Welland and return, 90c.; hack hire, 50c.....	1	40		
do 23...	do Port Colborne, Dunnville and return.....	3	50		
do 25...	do Thorold.....	0	20		
do 27...	Fare and expenses, Toronto and return, paying account.....	3	10		
do 18-25...	3 days board for self away on duty, at \$3.....	9	00		
				22	70
do 20...	J. E. Lawrence, St. Catharines— Fare and express, Toronto and return, for boat.....	1	90		
	Paid Pim & Co.— 1 printing press, for use in canal office, copying accounts, &c.....	5	00		
	1 doz. ink for same.....	5	00		
				11	90
do 26-29...	William Ellis, Superintendent, St. Catharines—Cab fare at Catharines and Ottawa, and railway fares and expenses to and from Ottawa, Pullman fees and refreshments, conferring with Messrs. Bain, Mothersill and Tilley, re appropriations, &c.....			41	55
				557	35

PAY-LIST in duplicate of Persons employed on the old Welland and Feeder Canal, during the month of August, 1886, to pay Permanent Establishment and account, Chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Overseer.....	August....	J. B. Smith.....	1 month..	100 00	100 00
Master, Lock 1 and Bridge.....	do .....	Sam. Duffin.....	1 do ...	42 00	42 00
Assistant.....	do .....	Wm. Smith.....	1 do ...	42 00	42 00
do .....	do .....	R. Edgraff.....	1 do ...	42 00	42 00
do .....	do .....	John House.....	1 do ...	42 00	42 00
Master, Lock 2 and Bridge.....	do .....	Walter Weaver.....	1 do ...	42 00	42 00
Assistant.....	do .....	J. Johnson.....	1 do ...	42 00	42 00
do .....	do .....	W. H. Charles.....	1 do ...	42 00	42 00
do .....	do .....	John Sullivan.....	1 do ...	42 00	42 00
St. Paul Street Bridge..	do .....	Wm. McClorey .....	1 do ...	38 00	38 00
Assistant.....	do .....	Tim Sullivan.....	1 do ...	38 00	38 00
Master, Lock 3.....	do .....	Alex. Walker.....	1 do ...	38 00	38 00
Assistant.....	do .....	Fred. Sherer.....	1 do ...	38 00	38 00
Master, Lock 4 and Bridge.....	do .....	Jas. Livingston.....	1 do ...	42 00	42 00
Assistant.....	do .....	James Boyle.....	1 do ...	42 00	42 00
Master, Locks 5, 6, 7 and Bridge..	do .....	Robert Boyle.....	1 do ...	42 00	42 00
Assistant.....	do .....	Michael White.....	1 do ...	42 00	42 00
Master, Locks 8, 9, 10 and 11.....	do .....	B. Clarke.....	1 do ...	38 00	38 00
Assistant.....	do .....	C. W. Bradley.....	1 do ...	38 00	38 00
Master, Locks 12, 13, 14, 15 and Bridge.....	do .....	James Cogan.....	1 do ...	38 00	38 00
Assistant.....	do .....	Martin Nestor.....	1 do ...	38 00	38 00
Master, Locks 16, 17 and 18.....	do .....	B. Darby.....	1 do ...	38 00	38 00
Assistant.....	do .....	Robt. Gibson.....	1 do ...	38 00	38 00
Master, Locks 19, 20 and 21.....	do .....	E. McLaughlin.....	1 do ...	38 00	38 00
Assistant.....	do .....	Robt. Bradley.....	1 do ...	38 00	38 00
Master, Lock 22 and Keefer's Bridge.....	do .....	John McNamara.....	1 do ...	38 00	38 00
Assistant.....	do .....	A. W. Bradley.....	1 do ...	38 00	38 00
Master, Locks 23, 24 and Bridge...	do .....	John Neil.....	1 do ...	42 00	42 00
Assistant.....	do .....	D. Ryckman.....	1 do ...	38 00	38 00
Master, Lock 25 and Guard Lock.....	do .....	John Fluellyn.....	1 do ...	38 00	38 00
Assistant.....	do .....	Rufus Swazzie.....	1 do ...	38 00	38 00
Hurst's Bridge.....	do .....	Jacob Renter.....	1 do ...	38 00	38 00
Marlatt's do .....	do .....	Nelson Higgins.....	1 do ...	38 00	38 00
Allanburgh Bridge.....	do .....	A. H. Upper.....	1 do ...	38 00	38 00
do Lock.....	do .....	Wm. Higgins.....	1 do ...	38 00	38 00
do Asst. Lock.....	do .....	Lewis Mosier.....	1 do ...	38 00	38 00
do Guard Lock.....	do .....	Aaron Higgins.....	1 do ...	38 00	38 00
do Asst. Guard Lock...	do .....	Oscar Upper.....	1 do ...	38 00	38 00
Foreman on Banks, Feeder Div...	do .....	John Gearin.....	1 do ...	38 00	38 00
Overseer.....	do .....	John E. Scott.....	1 do ...	800 per an.	66 67
Junction Lock.....	do .....	George Hannah.....	1 do ...	38 00	38 00
Feeder Flout Bridge.....	do .....	John Henderson.....	1 do ...	10 00	10 00
Stromness' Bridge.....	do .....	George Harris.....	1 do ...	38 00	38 00
Port Maitland Lock.....	do .....	Micheal Corcoran.....	1 do ...	38 00	38 00
do Asst. Lock.....	do .....	Wm. Brennan.....	1 do ...	38 00	38 00
Registrar of water, &c., Dunnville	do .....	Charles Trush.....	1 do ...	38 00	38 00
					1,862 67



**ACCOUNTS Chargeable to Old Welland and Feeder Canal Staff and Working Expenses.**

Date.	Nature of Work.	\$ cts.	\$ cts.
1886.			
Aug. 31.....	To G. N. W. Telegraph Co., Dunnville—Telegrams from 1st July, 1886, to 30th August, 1886.....		3 56
July 31.....	To William Chelew, St. Catharines—28 gals. coal oil, at 23c.....		6 44
Aug. 31.....	To Dunnville Electric Light Co., Dunnville—62 lightings for new swing bridge and old bridge at Guard Lock, at 12½c.....		7 75
	Total.....		17 75

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of September, 1886, to pay permanent establishment and accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
Superintendent.....	Sept., 1886	William Ellis.....	1 month...	2,900 00	241 66	14 50
Paymaster.....	do	R. D. Dunn.....	1 do	1,400 00	116 66	7 00
Accountant.....	do	J. E. Lawrence.....	1 do	1,000 00	83 34	
<i>Harbor Masters.</i>						
Port Dalhousie.....	do	Wm. Cook.....	1 do	750 00	62 50	3 75
Port Colborne .....	do	C. H. Carter .....	1 do	750 00	62 50	3 75
<i>Overseers.</i>						
Division No. 1.....	do	J. G. Demare.....	1 do	100 00	100 00	6 00
do No. 2.....	do	Jas. Dell.....	1 do	75 00	75 00	
do No. 3.....	do	A. Hamilton.....	1 do	60 00	60 00	3 20
do No. 4.....	do	T. R. Secord.....	1 do	65 00	65 00	
Storekeeper, &c.....	do	W. W. Wait.....	1 do	65 00	65 00	
Messenger, &c .....	do	Thos. J. Hartley...	30 days...	1 25	37 50	
In charge of iron and steel bridges, also steam pump, &c.....	do	W. Chatfield.....	1 month...	75 00	75 00	
<i>Division No. 1.</i>						
Ferryman, Port Dalhousie..	Sept., 1886	Frank Smith.....	26 days...	1 40	36 40	
Master, Lock 1.....	do	J. M. Woodall.....	1 month...	42 00	42 00	1 58
Assistant .....	do	Geo. Howe.....	1 do	45 00	45 00	1 69
do .....	do	John Paxton.....	1 do	45 00	45 00	1 69
do .....	do	Thos. Williams.....	1 do	45 00	45 00	
Master, Bridge 1 .....	do	Frank Darby.....	1 do	45 00	45 00	
Assistant .....	do	P. Ohneath.....	1 do	45 00	45 00	
Master, Lock 2.....	do	Alph. Kelley.....	1 do	47 00	47 00	
Assistant .....	do	Geo. Bowman.....	1 do	45 00	45 00	
do .....	do	B. Merritt.....	1 do	45 00	45 00	
do .....	do	R. Hutton.....	1 do	45 00	45 00	
Master, Lock 3.....	do	J. Johnston.....	1 do	47 00	47 00	
Assistant .....	do	Jas. Keys.....	1 do	45 00	45 00	
do .....	do	Con. Gorman.....	1 do	45 00	45 00	1 69
do .....	do	Jas. Grogan.....	1 do	45 00	45 00	
Master, Bridge 2.....	do	John Flynn.....	1 do	45 00	45 00	1 69
Assistant .....	do	H. Alexander.....	1 do	45 00	45 00	

PAY LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
<i>Division No. 1—Con.</i>				\$ cts.	\$ cts.	\$ cts.
Master Lock 4 .....	Sept., 1886	J. Franklin.....	1 month...	47 00	47 00	
Assistant.....	do	S. Hopkins.....	1 do	45 00	45 00	
do .....	do	W. Alftott.....	1 do	45 00	45 00	
do .....	do	J. Woodall.....	1 do	45 00	45 00	
Master Lock 5 .....	do	T. Scott.....	1 do	47 00	47 00	
Assistant.....	do	J. Pennington.....	1 do	45 00	45 00	
do .....	do	Thos. Jones.....	1 do	45 00	45 00	
do .....	do	J. Wilde.....	1 do	45 00	45 00	
Master Bridge 3.....	do	G. H. Browmen.....	1 do	45 00	45 00	
Assistant.....	do	M. Morarity.....	1 do	45 00	45 00	
Master Lock 6.....	do	P. Paxton.....	1 do	47 00	47 00	
Assistant.....	do	J. Daley.....	1 do	45 00	45 00	
do .....	do	Chas. Sabine.....	1 do	45 00	45 00	
do .....	do	C. Newbold.....	1 do	45 00	45 00	
Master Bridge 5.....	do	Wm. Elliott.....	1 do	45 00	45 00	
Assistant.....	do	Geo. Spooner.....	1 do	45 00	45 00	
Master Lock 7 .....	do	G. B. Hare.....	1 do	47 00	47 00	1 77
Assistant.....	do	M. Sullivan.....	1 do	45 00	45 00	
do .....	do	Wm. Boyle.....	1 do	45 00	45 00	
do .....	do	R. Freeman.....	1 do	45 00	45 00	1 69
Master Bridge 6.....	do	J. Grant.....	1 do	45 00	45 00	
Assistant.....	do	A. Stewart.....	1 do	45 00	45 00	
Master Lock 8.....	do	N. Hayden.....	1 do	47 00	47 00	
Assistant.....	do	Wm. Reid.....	1 do	45 00	45 00	
do .....	do	R. Secord.....	1 do	45 00	45 00	
do .....	do	M. McCormick.....	1 do	45 00	45 00	
Master Lock 9 .....	do	R. H. Watson.....	1 do	47 00	47 00	
Assistant.....	do	Alex. Soper.....	1 do	45 00	45 00	
do .....	do	T. C. Longley.....	1 dq	45 00	45 00	
do .....	do	A. Bradt.....	1 do	45 00	45 00	
Master Bridge 7.....	do	J. Whitten.....	1 do	45 00	45 00	
Assistant.....	do	J. Cushman.....	1 do	45 00	45 00	
Master Lock 10 .....	do	J. Bradley.....	1 do	47 00	47 00	1 77
Assistant.....	do	J. Mulvey.....	1 do	45 00	45 00	1 69
do .....	do	H. Hare.....	1 do	45 00	45 00	1 69
do .....	do	T. Wilson.....	1 do	45 00	45 00	
Master Bridge 8.....	do	A. Cain.....	1 do	45 00	45 00	
Assistant.....	do	J. McGeachie.....	1 do	45 00	45 00	
Master Lock 11.....	do	J. Reynolds.....	1 do	47 00	47 00	
Assistant.....	do	A. Wilson.....	1 do	47 00	47 00	1 69
do .....	do	J. Webster.....	1 do	47 00	47 00	
do .....	do	W. P. Burleigh.....	1 do	47 00	47 00	
Master Lock 12.....	do	Wm. Strong.....	1 do	47 00	47 00	1 77
Assistant.....	do	E. Bradley.....	1 do	45 00	45 00	
do .....	do	F. Mughan.....	1 do	45 00	45 00	
do .....	do	J. McBride.....	1 do	45 00	45 00	
Master Lock 13 .....	do	T. Keating.....	1 do	47 00	47 00	
Assistant.....	do	J. Turner.....	1 do	45 00	45 00	
do .....	do	J. A. Bradley.....	1 do	45 00	45 00	
do .....	do	G. Milliward.....	1 do	45 00	45 00	
<i>Division No. 2.</i>						
Master, Bridge 9 .....	do	John Clarke.....	1 do	45 00	45 00	
Assistant.....	do	John Black.....	1 do	45 00	45 00	
Master, Lock 14.....	do	Con. Nestor.....	1 do	47 00	47 00	
Assistant.....	do	J. Winton.....	1 do	45 00	45 00	
do .....	do	J. Strong.....	1 do	45 00	45 00	
do .....	do	T. Flynn.....	1 do	45 00	45 00	1 69
Master, Lock 15.....	do	J. Aikens.....	1 do	47 00	47 00	
Assistant.....	do	J. McAuley.....	1 do	45 00	45 00	1 69
do .....	do	W. J. Wilson.....	1 do	45 00	45 00	
do .....	do	A. Boyle.....	1 do	45 00	45 00	
Master, Lock 16.....	do	T. Burley.....	1 do	47 00	47 00	



## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
<i>Division No. 2—Con.</i>				\$ cts.	\$ cts.	\$ cts.
Assistant.....	Sept., 1886	S. Bradley.....	1 month...	45 00	45 00	
do .....	do	J. Holland.....	1 do ...	45 00	45 00	
do .....	do	A. Moran.....	1 do ...	45 00	45 00	1 69
Master, Lock 17.....	do	M. Coody.....	1 do ...	47 00	47 00	
Assistant.....	do	F. Shennan.....	1 do ...	45 00	45 00	
do .....	do	M. Doohar.....	1 do ...	45 00	45 00	
do .....	do	Michael Glynn.....	1 do ...	45 00	45 00	
Master, Lock 18.....	do	J. H. Pearson.....	1 do ...	47 00	47 00	
Assistant.....	do	G. Newton.....	1 do ...	45 00	45 00	
do .....	do	T. Hanna.....	1 do ...	45 00	45 00	
do .....	do	G. Cook.....	1 do ...	45 00	45 00	
Master, Lock 19.....	do	R. Grisdale.....	1 do ...	47 00	47 00	
Assistant.....	do	F. Johnson.....	1 do ...	45 00	45 00	
do .....	do	J. J. Duffy.....	1 do ...	45 00	45 00	
do .....	do	F. Heschke.....	1 do ...	45 00	45 00	
Master, Lock 20.....	do	J. Renter.....	1 do ...	47 00	47 00	
Assistant.....	do	I. McMahon.....	1 do ...	45 00	45 00	
do .....	do	J. Collins.....	1 do ...	45 00	45 00	1 69
do .....	do	T. Freel.....	1 do ...	45 00	45 00	1 69
Master, Lock 21.....	do	F. C. Berriman.....	1 do ...	47 00	47 00	
Assistant.....	do	John Cole.....	1 do ...	45 00	45 00	
do .....	do	J. Ellis.....	1 do ...	45 00	45 00	
do .....	do	A. Clark.....	1 do ...	45 00	45 00	
Master, Lock 22.....	do	Wm. Hanna.....	1 do ...	47 00	47 00	
Assistant.....	do	Wm. Boyle.....	1 do ...	45 00	45 00	
do .....	do	Patk. McNamara.....	1 do ...	45 00	45 00	1 69
do .....	do	Hy. Phillips.....	1 do ...	45 00	45 00	
Master, Lock 23.....	do	T. Bonewell.....	1 do ...	47 00	47 00	
Assistant.....	do	I. Smerdon.....	1 do ...	45 00	45 00	
do .....	do	T. Commarford.....	1 do ...	45 00	45 00	1 69
do .....	do	J. Corbett.....	1 do ...	45 00	45 00	1 69
Master, Lock 24.....	do	R. Campbell.....	1 do ...	47 00	47 00	
Assistant.....	do	M. Henderson.....	1 do ...	45 00	45 00	
do .....	do	T. Bradley.....	1 do ...	45 00	45 00	
do .....	do	Hy. Kern.....	1 do ...	45 00	45 00	
Master, Bridge 10.....	do	Wm. Fleming.....	1 do ...	45 00	45 00	
Assistant.....	do	F. Galbraith.....	1 do ...	45 00	45 00	
Master, Lock 25.....	do	M. McCarthy.....	1 do ...	47 00	47 00	1 77
Assistant.....	do	G. Detlor.....	1 do ...	45 00	45 00	
do .....	do	S. Campbell.....	1 do ...	45 00	45 00	
do .....	do	R. Wright.....	1 do ...	45 00	45 00	
Master, Bridge 12.....	do	G. A. Thomas.....	1 do ...	45 00	45 00	
Assistant.....	do	R. Camp.....	1 do ...	45 00	45 00	
Master, Guard Lock.....	do	C. H. Collier.....	1 do ...	42 00	42 00	1 58
Assistant.....	do	Sam. Frazer.....	1 do ...	45 00	45 00	
do .....	do	Fred. Lay.....	1 do ...	45 00	45 00	1 69
do .....	do	Jas. Cook.....	1 do ...	45 00	45 00	
Master, Bridge 13.....	do	R. Higgins.....	1 do ...	45 00	45 00	1 69
Assistant.....	do	Wm. Upper.....	1 do ...	45 00	45 00	
<i>Division No. 3.</i>						
Master, Bridge 14.....	Sept., 1886	D. O'Leary.....	1 month...	45 00	45 00	1 69
Assistant.....	do	Geo. A. Upper.....	1 do ...	40 00	40 00	
Master, Bridge 15.....	do	B. O'Leary.....	1 do ...	45 00	45 00	1 69
Assistant.....	do	G. Thompson.....	1 do ...	45 00	45 00	1 69
Port Robinson Ferry.....	do	R. Stevenson.....	1 do ...	30 00	30 00	
do Lock .....	do	Jas. McCoppen.....	1 do ...	47 00	47 00	1 77
Assistant.....	do	Jas. Walsh.....	1 do ...	45 00	45 00	1 69
Master, Bridge 16.....	do	Jas. Edmonds.....	1 do ...	45 00	45 00	1 69
Assistant.....	do	Geo. P. Misner.....	1 do ...	45 00	45 00	



## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
<i>Division No. 4.</i>						
Welland Lock.....	Sept., 1886	Wm. Wilson.....	1 month...	45 00	45 00	
Master, Bridge 17.....	do	Jas. Foster.....	1 do	45 00	45 00	1 69
Assistant .....	do	L. J. Brennan.....	1 do	45 00	45 00	
Master, Bridge 19.....	do	Chas. Hanna.....	1 do	45 00	45 00	1 69
Assistant .....	do	Richard Hanna.....	1 do	45 00	45 00	1 69
Humberstone Ferry.....	do	M. Traynor.....	1 do	30 00	30 00	
Master, Bridge 21.....	do	E. Bonaberg.....	1 do	45 00	45 00	1 69
Assistant .....	do	T. Shisler.....	1 do	45 00	45 00	
Port Colborne Lock and Bridge.....	do	J. Henshaw.....	1 do	42 00	42 00	1 58
do .....	do	J. Cook.....	1 do	42 00	42 00	1 58
do .....	do	J. Stevens.....	1 do	42 00	42 00	1 58
do .....	do	W. Aikens.....	1 do	42 00	42 00	1 58
do .....	do	J. Dunlap.....	1 do	42 00	42 00	
Port Colborne Ferry.....	do	Jno. Bradley.....	1 do	42 00	42 00	1 58
Assisting Ferryman.....	do	E. Bradley.....	4 days....	1 25	5 00	
Signalling and controlling safe passage of vessels through old Aqueduct at Welland, night and day.	do	Jos. McMurrey.....	30 do	1 50	45 00	
	do	Jas. Nixon.....	30 do	1 50	45 00	
	do	Wm. Nixon.....	30 do	1 50	45 00	
	do	R. Simpson.....	30 do	1 50	45 00	
MACHINISTS.						
<i>Division No. 1.</i>						
Keeping machinery connected with lock gates and water weirs in proper order throughout Division No. 1.	Sept., 1886	Jno. Marshall.....	5 days....	2 25	11 25	
	do	Sam. Houston.....	25 do	2 00	50 00	
	do	E. Newall, H. & Wg	25 do	1 50	37 50	
<i>Division No. 2.</i>						
Keeping machinery connected with lock gates and water weirs in proper order throughout Division No. 2.	Sept., 1886	V. Mann.....	28 days....	2 00	56 00	
	do	T. Ryan.....	28 do	1 75	49 00	
	do	J. H. Booth, H. & Wg	28 do	1 50	42 00	
Diver .....	do	E. Smiley.....	23 do	2 00	46 00	
					8,253 31	103 74

## ACCOUNTS chargeable to Welland Canal Staff and Working Expenses.

Date.	Nature of Work.	\$ cts.	\$ cts.
1886.			
Sept. 1-30...	To G. N. W. Telegraph Co., St. Catharines—Telegrams during month.....		16 57
do 1-30...	G. N. W. Telegraph Co., Port Dalhousie—Telegrams during month.....		1 08
do 1-30...	G. N. W. Telegraph Co., Allanburgh—Telegrams during month.....		1 00
do 1-30...	Bell Telephone Co., Welland—Telephone service during month.....		9 15
do 1-30...	Bell Telephone Co., Port Colborne—Telephone service, 3 months ending Sept. 30, 1886.....		5 75
do 1-30...	C. P. R. Telegraph Co., St. Catharines—Telegrams during month.....		6 06
do 1-30...	The Journal Printing Co., St. Catharines—Advertising list of vessels passing through Welland Canal, 255 words, at 4c.....		10 20
do 1-30...	B. C. Fairfield, St. Catharines—Postage stamps.....		9 18
do 30...	L. G. Carter, Port Colborne—Postage stamps, 3 months ending Sept. 30, 1886.....		7 12
July 6 to			
Sept. 30 ...	John Junkin & Co., St. Catharines— 2 cases matches, at \$5, \$10; 8 doz. chimneys, at \$1 50, \$12 .....	22 00	
	6 doz. chimneys, at \$1.20, \$7.20; 4 doz. large burners, at \$2.50, \$10.....	17 20	
	4 doz. M. burners, at \$2, \$8; 2 gross lampwicks, \$1.75...	9 75	
	4 doz. brooms, at \$3, \$12; 10 lantern burners, \$1.80 .....	13 80	
	1 duster, 80c.; 1 counter brush, 45c. ....	1 25	
			64 00
Sept. 30...	Wm. Chelm, St. Catharines—171 galls. coal oil.....		39 33
do 1-30...	Wm. N. Garden, Welland— 37 galls coal oil, at 30c., \$11.10; 2½ doz. chimneys, at \$1, \$2.50 .....	13 60	
	3 boxes matches, 38c.; lamp wick, 6c.....	0 44	
			14 04
do 1-30...	John Mathews, Port Colborne— 30 galls. coal oil, at 30c, \$9; 2 burners, 80c.....	9 80	
	1 oil can, 20c.; 2 deck brooms, 60c.; wick, 2c.....	0 82	
			10 62
do 1-30...	Wm. Pike, Thorold— 2,510 lbs. coal, at \$6.25 per ton.....	7 83	
	10,050 do 5.75 do .....	28 89	
			36 72
do 1-30...	Hill & Sons, Port Robinson—2 cords hard wood.....		9 00
Aug. 27...	D. D'Erarde, Registrar, Welland—Searches and description .....		4 23
Sept. 24...	J. G. Currie, Registrar, St. Catharines—Copy of description deed, Bradley to Crown .....		1 00
do 1-30...	Grand Trunk Railway Co., St. Catharines—8 bridge tenders' wages, St. Catharines and Thorold Railway Bridges across canal, 1 month each, at \$45.....		360 00
do 30...	J. G. Demare, Overseer, Division 1, Port Dalhousie—Use of horse and waggon, 3 months ending Sept. 30, 1886, in connection with duties as overseer, at \$150 per ann. ....		37 50
Sept. 30...	James Dell, Overseer, Division No. 2, Thorold— 3 months' house rent, at \$8.....	24 00	
	Use of horse and waggon 3 months ending 30th Sept., 1886, in connection with duties of Overseer, at \$50 per annum.....	37 50	
			61 50
do 30...	A. Hamilton, Overseer, Division No. 3, Port Robinson— 3 months' house rent, at \$8.....	24 00	
	Postage, 60 cts.; railway fares, \$1.40.....	2 00	
			26 00

**ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses—Concluded.**

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
July 1-31...	Thos. R. Secord, Overseer, Division No. 4, Port Colborne—		
	15 railway fares, Welland and returning, at 45 cts.....	6 75	
	4 do Air Line do 20 cts.....	0 80	
Aug. 1-31...	16 do Welland do 45 cts.....	7 20	
	7 do Air Line do 20 cts.....	1 40	
Sept. 1-30...	18 do Welland do 45 cts.....	8 10	
	5 do Air Line do 20 cts. ....	1 20	
Sept. 30...	W. W. Waits, St. Catharines—Use of horse and waggon delivering oil and stone along canal.....	20 00	25 45
Sept. 1-30...	A. Thompson, Welland—4½ weeks' board and lodging for C. H. Laster, in charge of aqueduct at Welland, at \$4 .....	17 14	20 00
Sept. 18...	R. D. Dunn, Paymaster, St. Catharines—		17 14
do 20...	Horse and buggy 1 day and attention.....	2 75	
	do do \$1.50; hotel bills, assistant and horse, \$1.....	3 50	
do 21...	Railway fares and hack hire, Welland and return .....	1 10	
do 22-23...	do do Dunnville do .....	3 00	
do 29...	do Thorold and return .....	0 20	
do 18-29...	3 days' board and lodging for self, \$3.....	9 00	
do 30...	William Ellis, Superintendent, St. Catharines—		19 55
	Allowance for quarter for ordinary expenses.....	75 00	
	From headquarters, 3 months.....	6 10	
			81 10
			893 29



**PAY-LIST** in duplicate of Persons employed on the Old Welland and Fæder Canal during the month of September, 1886, to pay Permanent Establishment and account chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
Overseer.....	Sept., 1886	Jno. B. Smith.....	1 month..	100 00	100 00	6 00
Master, lock 1 and bridge.	do ..	Sam. Duffin.....	1 do ..	42 00	42 00	1 58
Assistant.....	do ..	Wm. Smith.....	1 do ..	42 00	42 00	1 58
do .....	do ..	Robt. Edgraft.....	1 do ..	42 00	42 00	1 58
do .....	do ..	John House.....	1 do ..	42 00	42 00	.....
Master, lock 21 and bridge.	do ..	W. Weaver.....	1 do ..	42 00	42 00	1 58
Assistant.....	do ..	J. Johnson.....	1 do ..	42 00	42 00	1 58
do .....	do ..	W. H. Charles.....	1 do ..	42 00	42 00	1 58
do .....	do ..	John Sullivan.....	1 do ..	42 00	42 00	1 58
St. Paul Street Bridge.....	do ..	Wm. McClorey ..	1 do ..	38 00	38 00	1 43
Assistant.....	do ..	Tim. Sullivan.....	1 do ..	38 00	38 00	1 43
Master, lock No. 3.....	do ..	Alex. Walker.....	1 do ..	38 00	38 00	1 43
Assistant.....	do ..	Fred. Sherer.....	1 do ..	38 00	38 00	1 43
Master, lock 4 and bridge...	do ..	J. Levingstone.....	1 do ..	42 00	42 00	.....
Assistant.....	do ..	Jas. Boyle.....	1 do ..	42 00	42 00	1 58
Master, locks 5, 6, 7, and bd	do ..	Robert Boyle.....	1 do ..	42 00	42 00	1 58
Assistant.....	do ..	M. White.....	1 do ..	42 00	42 00	1 58
Master, locks 8, 9, 10 and 11	do ..	B. Clark.....	1 do ..	38 00	38 00	1 43
Assistant.....	do ..	C. D. Bradley.....	1 do ..	38 00	38 00	1 43
Master, locks 12, 13, 14, 15, and bridge.....	do ..	Jas. Cogan.....	1 do ..	38 00	38 00	1 43
Assistant.....	do ..	M. Nestor.....	1 do ..	38 00	38 00	1 43
Master, locks 16, 17, 18.....	do ..	B. Darby.....	1 do ..	38 00	38 00	1 43
Assistant.....	do ..	R. Gibson.....	1 do ..	38 00	38 00	1 43
Master, locks 19, 20, 21.....	do ..	E. McLaughlin....	1 do ..	38 00	38 00	1 43
Assistant.....	do ..	Robert Bradley.....	1 do ..	38 00	38 00	1 43
Master, lock 22 and Keefer's bridge.....	do ..	John McNamara....	1 do ..	38 00	38 00	1 43
Assistant.....	do ..	A. W. Bradley.....	1 do ..	38 00	38 00	1 43
Master, locks 23, 24 and bd..	do ..	John Neil.....	1 do ..	42 00	42 00	1 58
Assistant.....	do ..	D. Rickman.....	1 do ..	38 00	38 00	1 43
Master, lock 25, guard lock	do ..	John Fluellan.....	1 do ..	38 00	38 00	1 43
Assistant.....	do ..	R. Swazze.....	1 do ..	38 00	38 00	1 43
Hurst's Bridge.....	do ..	Jacob Renter.....	1 do ..	38 00	38 00	1 43
Marlatt's do .....	do ..	Nelson Higgins....	1 do ..	38 00	38 00	1 43
Allanburgh Bridge.....	do ..	A. H. Upper.....	1 do ..	38 00	38 00	1 43
do Lock.....	do ..	Wm. Higgins.....	1 do ..	38 00	38 00	over 35 yrs
do Asst Lock.....	do ..	Lewis Mosier.....	1 do ..	38 00	38 00	1 43
do Guard Lock.....	do ..	Aaron Higgins....	1 do ..	38 00	38 00	over 35 yrs
Assistant.....	do ..	Oscar Upper.....	1 do ..	38 00	38 00	.....
Foreman on banks.....	do ..	John Gearin.....	1 do ..	38 00	38 00	1 43
<i>Feeder Division.</i>						
Overseer.....	do ..	John E. Scott.....	1 do ..	800 per an.	66 66	4 00
Junction Lock.....	do ..	George Hannah....	1 do ..	38 00	38 00	1 43
Feeder, Float Bridge.....	do ..	John Henderson....	1 do ..	10 00	10 00	.....
Stromness do .....	do ..	George Harris.....	1 do ..	38 00	38 00	1 43
Port Maitland Lock.....	do ..	M. Corcoran.....	1 do ..	38 00	38 00	1 43
do Asst. Lock.....	do ..	M. Brennan.....	1 do ..	38 00	38 00	.....
Reg. of water at Dunnville	do ..	Chas. Thrush.....	1 do ..	38 00	38 00	over 35 yrs
					1,862 66	61 70

**ACCOUNTS chargeable to Old Welland and Feeder Canal Staff and Working Expenses.**

Date.	Nature of Work.	\$	cts.	\$	cts.
Sept. 1-30...	To John B. Smith, Overseer, Merritton— 3 months' house rent, at \$8 .....	24	00		
	Use of horse and waggon for 3 months ending 30th September, 1886, in connection with duties of overseer, at \$150 per annum .....	37	50		
				61	50
July 1-31...	To John E. Scott, Overseer, Dunnville— Horse and buggy to Marshville, 3 days, at \$1.50 .....	4	50		
	do Port Maitland, 4 days, at \$1.25 .....	5	00		
	do Junction, 2 days .....	4	00		
	do Marshville and town line, 3 dys at \$1.50 .....	4	50		
	do Stromness, 3 days, at \$1.25 .....	3	75		
	do Junction .....	2	00		
	do Townhill and Marshville, 4 days, at \$1.50 .....	6	00		
	do Port Maitland, 2 days, at \$1.25 .....	2	50		
	do Junction, 1 day .....	2	00		
				34	25
Sept. 1-21...	To F. R. Labor, Dunnville, 55 galls. coal oil, at 22c .....			12	10
Sept. 1-30...	To Dunnville Electric Light Co., Dunnville, lighting 2 swing bridges, 60 lights .....			7	50
	Total .....			115	35

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of October, 1886, to pay permanent establishment, and account chargeable to staff and working expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$	\$ cts.
Superintendent .....	Oct., 1886.	Wm. Ellis .....	1 month..	2,900 p. a.	241 67
Paymaster .....	do	R. D. Dunn .....	1 do ..	1,400 " "	116 67
Accountant .....	do	J. E. Lawrence .....	1 do ..	1,000 " "	83 33
Harbor Masters—					
Port Dalhousie .....	do	Wm. Cook .....	1 do ..	750 " "	62 50
Port Colborne .....	do	C. H. Carter .....	1 do ..	750 " "	62 50
Overseers—				\$ cts.	
Division No. 1 .....	do	J. G. Demare .....	1 do ..	100 00	100 00
do 2 .....	do	Jas. Dell .....	1 do ..	75 00	75 00
do 3 .....	do	A. Hamilton .....	1 do ..	60 00	60 00
do 4 .....	do	T. R. Secord .....	1 do ..	65 00	65 00
Storekeeper, &c. ....	do	W. W. Wait .....	1 do ..	65 00	65 00
Messenger .....	do	Thos. J. Hartley .....	31 days...	1 25	38 75
In charge of iron and steel bridges, and also steam pump...	do	W. Chatfield .....	1 month..	75 00	75 00
<i>Division No. 1.</i>					
Ferryman .....	Oct., 1886.	Frank Smith .....	26 days...	1 40	36 40
Master, Lock 1 .....	do	J. M. Woodall .....	1 month..	42 00	42 00
Assistant .....	do	Geo. Howe .....	1 do ..	45 00	45 00
do .....	do	John Paxton .....	1 do ..	45 00	45 00
do .....	do	Thos. Williams .....	1 do ..	45 00	45 00
Master, Bridge 1 .....	do	Frank Darby .....	1 do ..	45 00	45 00
Assistant .....	do	P. Ohneath .....	1 do ..	45 00	45 00
Master, Lock 2 .....	do	Alph. Kelly .....	1 do ..	47 00	47 00



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 1—Con.</i>				\$ cts.	\$ cts.
Assistant.....	October...	Geo. Bowman.....	1 month...	45 00	45 00
do .....	do .....	B. Merritt.....	1 do .....	45 00	45 00
do .....	do .....	R. Hutton.....	1 do .....	45 00	45 00
Master, Lock 3.....	do .....	J. Johnston.....	1 do .....	47 00	47 00
Assistant.....	do .....	Jas. Keys.....	1 do .....	45 00	45 00
do .....	do .....	Con. Gorman.....	1 do .....	45 00	45 00
do .....	do .....	Jas. Grogan.....	1 do .....	45 00	45 00
Master, Bridge 2.....	do .....	Jno. Flynn.....	1 do .....	45 00	45 00
Assistant.....	do .....	H. Alexander.....	1 do .....	45 00	45 00
Master, Lock 4.....	do .....	Jos. Franklin.....	1 do .....	47 00	47 00
Assistant.....	do .....	Sam. Hopkins.....	1 do .....	45 00	45 00
do .....	do .....	Wm. Altoff.....	1 do .....	45 00	45 00
do .....	do .....	John Woodall.....	1 do .....	45 00	45 00
Master, Lock 5.....	do .....	Thos. Scott.....	1 do .....	47 00	47 00
Assistant.....	do .....	J. Pennington.....	1 do .....	45 00	45 00
do .....	do .....	Thos. Jones.....	1 do .....	45 00	45 00
do .....	do .....	John Wilde.....	1 do .....	45 00	45 00
Master, Bridge 3.....	do .....	John H. Brownlee.....	1 do .....	45 00	45 00
Assistant.....	do .....	M. Morarity.....	1 do .....	45 00	45 00
Master, Lock 6.....	do .....	Peter Paxton.....	1 do .....	47 00	47 00
Assistant.....	do .....	John Daley.....	1 do .....	45 00	45 00
do .....	do .....	Chas. Newbold.....	1 do .....	45 00	45 00
do .....	do .....	Chas. Sabine.....	1 do .....	45 00	45 00
Master, Bridge 5.....	do .....	Wm. Elliott.....	1 do .....	45 00	45 00
Assistant.....	do .....	Geo. Spooner.....	1 do .....	45 00	45 00
Master, Lock 7.....	do .....	C. B. Hare.....	1 do .....	47 00	47 00
Assistant.....	do .....	M. Sullivan.....	1 do .....	45 00	45 00
do .....	do .....	Wm. Boyle.....	1 do .....	45 00	45 00
do .....	do .....	R. Freeman.....	1 do .....	45 00	45 00
Master, Bridge 6.....	do .....	Jas. Grant.....	1 do .....	45 00	45 00
Assistant.....	do .....	Alex. Stewart.....	1 do .....	45 00	45 00
Master, Lock 8.....	do .....	Nich. Hayden.....	1 do .....	47 00	47 00
Assistant.....	do .....	Wm. Reed.....	1 do .....	45 00	45 00
do .....	do .....	R. Secord.....	1 do .....	45 00	45 00
do .....	do .....	M. McCormick.....	1 do .....	45 00	45 00
Master, Lock 9.....	do .....	R. H. Watson.....	1 do .....	47 00	47 00
Assistant.....	do .....	Alex. Soper.....	1 do .....	45 00	45 00
do .....	do .....	Jos. C. Longley.....	1 do .....	45 00	45 00
do .....	do .....	Alex. Bratt.....	1 do .....	45 00	45 00
Master, Bridge 7.....	do .....	James Whitten.....	1 do .....	45 00	45 00
Assistant.....	do .....	John Cushman.....	1 do .....	45 00	45 00
Master, Lock 10.....	do .....	Jas. Bradley.....	1 do .....	47 00	47 00
Assistant.....	do .....	Jas. Mulvey.....	1 do .....	45 00	45 00
do .....	do .....	Hy. Hare.....	1 do .....	45 00	45 00
do .....	do .....	Thos. Nelson.....	1 do .....	45 00	45 00
Master, Bridge 8.....	do .....	Albert Cain.....	1 do .....	45 00	45 00
Assistant.....	do .....	John McGeachie.....	1 do .....	45 00	45 00
Master, Lock 11.....	do .....	Jas. Reynolds.....	1 do .....	47 00	47 00
Assistant.....	do .....	Alex. Wilson.....	1 do .....	45 00	45 00
do .....	do .....	W. P. Burleigh.....	1 do .....	45 00	45 00
do .....	do .....	Jas. Webster.....	1 do .....	45 00	45 00
Master, Lock 12.....	do .....	Wm. Strong.....	1 do .....	47 00	47 00
Assistant.....	do .....	E. Bradley.....	1 do .....	45 00	45 00
do .....	do .....	F. Mughan.....	1 do .....	45 00	45 00
do .....	do .....	Jas. McBride.....	1 do .....	45 00	45 00
Master, Lock 13.....	do .....	Thos. Keating.....	1 do .....	47 00	47 00
Assistant.....	do .....	Jos. Turner.....	1 do .....	45 00	45 00
do .....	do .....	Jas. A. Bradley.....	1 do .....	45 00	45 00
do .....	do .....	Geo. Milliward.....	1 do .....	45 00	45 00
<i>Division No. 2.</i>					
Master, Bridge 9.....	do .....	John Clarke.....	1 do .....	45 00	45 00
Assistant.....	do .....	John Black.....	1 do .....	45 00	45 00



## PAY-LIST in duplicate of Persons employed on the Welland Canal—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 2.</i>				\$ cts.	\$ cts.
Master, Lock 14 .....	October ..	Con. Nestor .....	1 month..	47 00	47 00
Assistant .....	do ..	Jas. Winton .....	1 do ..	45 00	45 00
do .....	do ..	John Strong .....	1 do ..	45 00	45 00
do .....	do ..	Thos. Flynn .....	1 do ..	45 00	45 00
Master, Lock 15 .....	do ..	Thos. Aikens .....	1 do ..	47 00	47 00
Assistant .....	do ..	Jas. McAuley .....	1 do ..	45 00	45 00
do .....	do ..	W. J. Wilson .....	1 do ..	45 00	45 00
do .....	do ..	Robt. Boyle .....	1 do ..	45 00	45 00
Master, Lock 16 .....	do ..	Thos. Burley .....	1 do ..	47 00	47 00
Assistant .....	do ..	Samuel Bradley .....	1 do ..	45 00	45 00
do .....	do ..	Austin Moran .....	1 do ..	45 00	45 00
do .....	do ..	John Holland .....	1 do ..	45 00	45 00
Master, Lock 17 .....	do ..	Michael Coody .....	1 do ..	47 00	47 00
Assistant .....	do ..	J. Shennan .....	1 do ..	45 00	45 00
do .....	do ..	Michael Doober .....	1 do ..	45 00	45 00
do .....	do ..	Michael Glynn .....	1 do ..	45 00	45 00
Master, Lock 18 .....	do ..	J. H. Pierson .....	1 do ..	47 00	47 00
Assistant .....	do ..	Geo. Newton .....	1 do ..	45 00	45 00
do .....	do ..	Thos. Hanna .....	1 do ..	45 00	45 00
do .....	do ..	Jas. Cooke .....	1 do ..	45 00	45 00
Master, Lock 19 .....	do ..	R. Gridale .....	1 do ..	47 00	47 00
Assistant .....	do ..	F. Johnson .....	1 do ..	45 00	45 00
do .....	do ..	F. Hoshcke .....	1 do ..	45 00	45 00
do .....	do ..	J. J. Duffy .....	1 do ..	45 00	45 00
Master, Lock 20 .....	do ..	Jacob Renter .....	1 do ..	47 00	47 00
Assistant .....	do ..	Isaac McMann .....	1 do ..	45 00	45 00
do .....	do ..	John Collins .....	1 do ..	45 00	45 00
do .....	do ..	Thos. Freel .....	1 do ..	45 00	45 00
Master, Lock 21 .....	do ..	F. C. Berriman .....	1 do ..	47 00	47 00
Assistant .....	do ..	John Cole .....	1 do ..	45 00	45 00
do .....	do ..	James Ellis .....	1 do ..	45 00	45 00
do .....	do ..	Adelbert Clarke .....	1 do ..	45 00	45 00
Master, Lock 22 .....	do ..	Wm. Hanna .....	1 do ..	47 00	47 00
Assistant .....	do ..	P. McNamarra .....	1 do ..	45 00	45 00
do .....	do ..	Henry Phillips .....	1 do ..	45 00	45 00
do .....	do ..	Wm. Boyle .....	1 do ..	45 00	45 00
Master, Lock 23 .....	do ..	Thos. Bonewell .....	1 do ..	47 00	47 00
Assistant .....	do ..	Jas. Smerdon .....	1 do ..	45 00	45 00
do .....	do ..	John Corbett .....	1 do ..	45 00	45 00
do .....	do ..	T. Commanford .....	1 do ..	45 00	45 00
Master, Lock 24 .....	do ..	R. Campbell .....	1 do ..	47 00	47 00
Assistant .....	do ..	M. Henderson .....	1 do ..	45 00	45 00
do .....	do ..	Thos. Bradley .....	1 do ..	45 00	45 00
do .....	do ..	Henry Kern .....	1 do ..	45 00	45 00
Master, Bridge 10 .....	do ..	F. Gularaith .....	1 do ..	45 00	45 00
Assistant .....	do ..	Wm. Fleming .....	1 do ..	45 00	45 00
Master, Lock 25 .....	do ..	M. McCarthy .....	1 do ..	47 00	47 00
Assistant .....	do ..	Geo. Deller .....	1 do ..	45 00	45 00
do .....	do ..	Samuel Campbell .....	1 do ..	45 00	45 00
do .....	do ..	Robert Wright .....	1 do ..	45 00	45 00
Master, Bridge 12 .....	do ..	Geo. A. Thomas .....	1 do ..	45 00	45 00
Assistant .....	do ..	Robert Camp .....	1 do ..	45 00	45 00
Master, Guard Lock .....	do ..	C. H. Collier .....	1 do ..	42 00	42 00
Assistant .....	do ..	Sam Fraser .....	1 do ..	45 00	45 00
do .....	do ..	Fred. Lay .....	1 do ..	45 00	45 00
do .....	do ..	James Cook .....	1 do ..	45 00	45 00
Master, Bridge 13 .....	do ..	Richard Higgins .....	1 do ..	45 00	45 00
Assistant .....	do ..	Wm. Upper .....	1 do ..	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14 .....	October ..	Dan O'Leary .....	1 month..	45 00	45 00
Assistant .....	do ..	Geo. A. Upper .....	1 do ..	40 00	40 00
Master, Bridge 15 .....	do ..	Bart. O'Leary .....	1 do ..	45 00	45 00

PAY-LIST in duplicate of Persons employed on the Welland Canal—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 3—Con.</i>				\$ cts.	\$ cts.
Assistant .....	October...	Geo. Thompson.....	1 month..	45 00	45 00
Port Robinson Ferry.....	do ...	R. Stevenson.....	1 do ...	30 00	30 00
do Lock.....	do ...	James McCoppin ....	1 do ...	47 00	47 00
Assistant.....	do ...	James Walsh.....	1 do ...	45 00	45 00
Master, Bridge 16 .....	do ...	James Edmonds.....	1 do ...	45 00	45 00
Assistant.....	do ...	Geo. P. Misner.....	1 do ...	45 00	45 00
<i>Division No. 4.</i>					
Welland Lock .....	October...	William Wilson.....	1 month..	45 00	45 00
Master, Bridge 17.....	do ...	James Foster.....	1 do ...	45 00	45 00
Assistant .....	do ...	Luke J. Brenon.....	1 do ...	45 00	45 00
Master, Bridge 19 .....	do ...	Chas. Hannah.....	1 do ...	45 00	45 00
Assistant .....	do ...	Alex. Hannah.....	1 do ...	45 00	45 00
Humberstone Ferry.....	do ...	Michael Traynor.....	1 do ...	30 00	30 00
Master, Bridge 21 .....	do ...	Emel Bonebery .....	1 do ...	45 00	45 00
Assistant .....	do ...	Isaac Shisler.....	1 do ...	45 00	45 00
Port Colborne Lock and Bridge...	do ...	John Henshaw .....	1 do ...	42 00	42 00
do do ...	do ...	John Cook .....	1 do ...	42 00	42 00
do do ...	do ...	John Stevens.....	1 do ...	42 00	42 00
do do ...	do ...	Wm. Aikens.....	1 do ...	42 00	42 00
do do ...	do ...	Jas. Dunlap .....	1 do ...	42 00	42 00
do Ferry .....	do ...	John Bradley.....	1 do ...	42 00	42 00
Signalling and controlling safe passage of vessels through Old Aqueduct at Welland, night and day.	do ...	Joseph McMurray.....	31 days....	1 50	46 00
do do ...	do ...	Robert Simpson.....	31 do ...	1 50	46 50
do do ...	do ...	James Nixon .....	31 do ...	1 50	46 50
do do ...	do ...	William Nixon.....	31 do ...	1 50	46 50
MACHINISTS.					
<i>Division No. 1.</i>					
Keeping machinery connected with Lock Gates and Waste Weirs in proper order throughout.	October...	John Marshall.....	9½ days....	2 25	21 37
do do ...	do ...	Sam Houston.....	22½ do ...	2 00	45 00
do do ...	do ...	Ed. Newall, horse and waggon.	24 do ...	1 50	36 00
<i>Division No. 2.</i>					
Keeping machinery connected with Lock Gates and Waste Weirs in proper order throughout.	October...	Volney Mann.....	27½ do ...	2 00	55 00
do do ...	do ...	Thomas Ryan.....	27½ do ...	1 75	48 12
do do ...	do ...	J. H. Booth, horse and waggon.	27½ do ...	1 50	41 25
Diver.....	do ...	E. Smiley.....	24½ do ...	2 00	49 00
					8,259 56



## ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1886		\$ cts.	\$ cts.
Oct. 1-31...	To G. N.W. Telegraph Co., St. Catharines—Telegrams during month.....		6 43
do 31...	G. N. W. Telegraph Co., Welland—Telegrams from Jan. 15 to Oct. 31, 1888.....		11 02
do 31...	Bell Telephone Co., St. Catharines— 1 year's rent 4 sets telephone, at \$35.....	140 00	
	1 do 3 extension bells, at \$3.....	9 00	
	1 do 1 extension bell, at \$3.....	1 50	
	Communications Sept. and Oct.....	2 30	152 80
do 31...	John Cloy, Lock 25, new canal—Telephone communications from April 24 to Oct. 1.....		5 85
do 1-31...	Bell Telephone Co., Welland—Communications during month.....		15 05
do 1-31...	Bell Telephone Co., Port Colborne— 1 year's rent of instrument, \$25.....	12 50	
	Communications during month.....	7 85	20 35
do 1-31...	B. C. Fairfield, St. Catharines—Post cards and stamps....		8 30
do 31...	Geo. Bugar, Welland P. O.—Postage stamps.....		1 20
do 31...	Journal Printing Co., St. Catharines—Advertising list of vessels passing through Welland Canal, 205, at 4 cts.....		8 20
Oct. 1-31...	W. N. Garden, Welland— 39 gals. coal oil, at 30c., \$11.70; lamp wick, 3c.....	11 73	
	2 boxes matches, 25c.; 1 gal. lard oil, 80c.....	1 06	
	1 doz. lamp chimneys.....	1 00	
do 1-31...	John Mathews, Port Colborne— 29 gals. coal oil, at 30c., \$8.70; 3 chimneys, 30c.....	9 00	
	1 gal. lard oil, 80c.; 1 cord wood, \$2.50.....	3 30	13 79
do 31...	Thos. R. Secord, Port Colborne—Allowance for doing Harbor Master's duties at Port Colborne while Harbor Master was away passing vessels through old aqueduct at Welland, during the months of August, September and October, at \$20.....		60 00
do 31...	Richard Leeson, Merrittton—19 cords hard wood, at \$5.50....		104 50
do 31...	John Gutter, St. Catharines—12 tons nut coal, at \$6.25.....		75 00
do 31...	Wm. Pike, Thorold— 2,565 lbs. nut coal, at \$6.00 per ton.....	7 70	
	2,590 do 6.25 do .....	8 10	15 80
do 1-31...	Grand Trunk Railway Co., St. Catharines—1 mos. time for 8 railway bridge tenders, at \$45 each.....		360 00
do 1-31...	W. W. Wait, St. Catharines—Use of horse and waggon delivering stores, &c., along line of Canal.....		20 00
do 31...	A. Thompson, Welland—4½ weeks' board and lodging for C. H. Carter, in charge of aqueduct at Welland, at \$4.....		17 72
do 18...	R. D. Dunn, Paymaster, St. Catharines— Horse and buggy to Port Dalhousie, 1 day.....	2 50	
do 19...	do Thorold, Allanburgh and Port Robinson.....	2 50	
do 19...	Expenses of assistant and horse feed.....	1 00	
do 20...	Railway fare and hack hire, Welland and return.....	1 40	
do 21-22...	do do Port Colborne and Dunnville.....	2 60	
do 17-23...	3 days' board and lodging, self, along line of canal, September pay-list, at \$3.....	9 00	
do 31...	R. A. Abbey, Port Robinson— 12 gals. coal oil, at 30c., \$3.60; 1 splint broom, 50c.....	4 10	
	2 burners.....	0 50	
	Telegrams from January 1st, 1886, to date.....	1 81	19 00
do 31...	Bell Telephone Co., St. Catharines—1 year's rent of telephone, &c., at head lock, Allanburgh and Welland, to September 14, 1887 (including erection of poles and wires specially for this service).....		6 41
			200 00
			\$1,133 72



**PAY-LIST** in duplicate of Persons employed on the Old Welland and Feeder Canal during the month of October, 1886, to pay Permanent Establishments, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Overseer .....	Oct., 1886.	John B. Smyth .....	1 month...	100 00	100 00
Master, Lock 1 and Bridge .....	do	Sam. Duffin .....	1 do ...	42 00	42 00
Assistant .....	do	Wm. L. Smith .....	1 do ...	42 00	42 00
do .....	do	R. Engraft .....	1 do ...	42 00	42 00
do .....	do	John House .....	1 do ...	42 00	42 00
Master, Lock 2 and Bridge .....	do	Walter Weaver .....	1 do ...	42 00	42 00
Assistant .....	do	J. Johnson .....	1 do ...	42 00	42 00
do .....	do	Wm. H. Charles .....	1 do ...	42 00	42 00
do .....	do	John Sullivan .....	1 do ...	42 00	42 00
St. Paul Street Bridge .....	do	Wm. McClorey .....	1 do ...	38 00	38 00
Assistant .....	do	Tim. Sullivan .....	1 do ...	38 00	38 00
Master, Lock 3 .....	do	Alex. Walker .....	1 do ...	38 00	38 00
Assistant .....	do	Fred Sherer .....	1 do ...	38 00	38 00
Master, Lock 4 and Bridge .....	do	James Livingston .....	1 do ...	42 00	42 00
Assistant .....	do	James Boyle .....	1 do ...	42 00	42 00
Master, Locks 5, 6, 7 and Bridge..	do	Michael White .....	1 do ...	42 00	42 00
Assistant .....	do	Robert Boyle .....	1 do ...	42 00	42 00
Master, Locks 8, 9, 10 and 11....	do	B. Clarke .....	1 do ...	38 00	38 00
Assistant .....	do	C. W. Bradley .....	1 do ...	38 00	38 00
Master, Locks 12, 13, 14, 15 and Bridge .....	do	James Cogan .....	1 do ...	38 00	38 00
Assistant .....	do	Martin Nestor .....	1 do ...	38 00	38 00
Master, Locks 16, 17 and 18 .....	do	B. Darby .....	1 do ...	38 00	38 00
Assistant .....	do	R. Gibson .....	1 do ...	38 00	38 00
Master, Locks 19, 20 and 21 .....	do	E. McLaughlin .....	1 do ...	38 00	38 00
Assistant .....	do	Robert Bradley .....	1 do ...	38 00	38 00
Master, Lock 22 and Upper Bridge	do	John McNamara .....	1 do ...	38 00	38 00
Assistant .....	do	A. W. Bradley .....	1 do ...	38 00	38 00
Master, Locks 23, 24 and Bridge..	do	John Neil .....	1 do ...	42 00	42 00
Assistant .....	do	D. Ryckman .....	1 do ...	38 00	38 00
Master, Lock 25 and Guard Lock	do	John Fluellyon .....	1 do ...	38 00	38 00
Assistant .....	do	Rufus Swazzie .....	1 do ...	38 00	38 00
Hurst's Bridge .....	do	Jacob Renter .....	1 do ...	38 00	38 00
Marlatts do .....	do	Nelson Higgins .....	1 do ...	38 00	38 00
Allanburg Bridge .....	do	A. H. Upper .....	1 do ...	38 00	38 00
do Lock .....	do	Wm. Higgins .....	1 do ...	38 00	38 00
Assistant .....	do	Lewis Mosier .....	1 do ...	38 00	38 00
Allanburgh Guard Lock .....	do	Aaron Higgins .....	1 do ...	38 00	38 00
Assistant .....	do	Oscar Upper .....	1 do ...	38 00	38 00
Foreman on banks .....	do	John Gearrin .....	1 do ...	38 00	38 00
<i>Feeder Division.</i>					
Overseer .....	do	John E. Scott .....	1 month...	800 00	66 67
Junction Lock .....	do	G. W. Hannah .....	1 do ...	38 00	38 00
Feeder Flow Bridge .....	do	John Henderson .....	1 do ...	10 00	10 00
Stromness Bridge .....	do	Chev. Harris .....	1 do ...	38 00	38 00
Port Maitland Lock .....	do	Michael Corcoran .....	1 do ...	38 00	38 00
Assistant .....	do	Wm. Brennan .....	1 do ...	38 00	38 00
Regulating water at Dunnville...	do	Chas. Brennan .....	1 do ...	38 00	38 00
					1,862 67

**ACCOUNTS chargeable to Old Welland and Feeder Canal Staff and Working Expenses.**

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Oct. 31.....	To Richard Leeson, Merritt—7½ cords hard wood, \$5.50.....		41 25
do 31.....	Dunnville Electric Light Co., Dunnville—60 lights for swing bridge and guard lock, at 16½ cts.....		10 00
do 31.....	G.N.W. Telegraph Co., Dunnville—Telegrams from Sept. 1, 1886, to date.....		10 06
	Total.....		61 31

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of November, 1886, to pay permanent establishment and accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
Superintendent.....	November	William Ellis.....	1 month...	2,900 00	241 66
Paymaster.....	do	Richard D. Dunn.....	1 do	1,400 00	116 66
Accountant.....	do	James E. Lawrence.....	1 do	1,000 00	83 34
Harbor master, Port Dalhousie...	do	Wm. Cook.....	1 do	750 00	62 50
do Port Colborne...	do	C. H. Carter.....	1 do	750 00	62 50
Overseers Division No. 1.....	do	J. G. Demare.....	1 do	100 00	100 00
do do No. 2.....	do	James Dell.....	1 do	75 00	75 00
do do No. 3.....	do	A. Hamilton.....	1 do	60 00	60 00
do do No. 4.....	do	J. R. Secord.....	1 do	65 00	65 00
Storekeeper, &c.....	do	W. W. Wait.....	1 do	65 00	65 00
Messenger.....	do	Thos. J. Hartley.....	30 days....	125 00	37 50
In charge of steel and bridges generally.....	do	W. Chatfield.....	1 month...	75 00	75 00
<i>Division No. 1.</i>					
Port Dalhousie Ferry.....	do	Frank Smith.....	26 days....	1 40	36 40
Master, Lock 1.....	do	J. M. Woodall.....	1 month...	42 00	42 00
Assistant.....	do	Geo. Howe.....	1 do	45 00	45 00
do	do	J. Paxton.....	1 do	45 00	45 00
do	do	T. Williams.....	1 do	45 00	45 00
Master, Bridge 1.....	do	F. Darby.....	1 do	45 00	45 00
Assistant.....	do	P. O'Neath.....	1 do	45 00	45 00
Master, Lock 2.....	do	Alp. Kelly.....	1 do	47 00	47 00
Assistant.....	do	G. Bowman.....	1 do	45 00	45 00
do	do	B. Merritt.....	1 do	45 00	45 00
do	do	R. Hutton.....	1 do	45 00	45 00
Master Lock 3.....	do	J. Johnston.....	1 do	47 00	47 00
Assistant.....	do	Jas. Keys.....	1 do	45 00	45 00
do	do	C. Gorman.....	1 do	45 00	45 00
do	do	Jas. Grogan.....	1 do	45 00	45 00
Master, Bridge 2.....	do	Jno. Flynn.....	1 do	45 00	45 00
Assistant.....	do	H. Alexander.....	1 do	45 00	45 00
Master, Lock 4.....	do	J. Franklin.....	1 do	47 00	47 00
Assistant.....	do	S. Hopkins.....	1 do	45 00	45 00
do	do	Wm. Altoft.....	1 do	45 00	45 00
do	do	J. Woodall.....	1 do	45 00	45 00
Master, Lock 5.....	do	Thos. Scott.....	1 do	47 00	47 00
Assistant.....	do	J. Pennington.....	1 do	45 00	45 00
do	do	Thos. Jones.....	1 do	45 00	45 00
do	do	Jno. Wilde.....	1 do	45 00	45 00
Master, Bridge 3.....	do	G. H. Brownlee.....	1 do	45 00	45 00
Assistant.....	do	M. Morarity.....	1 do	45 00	45 00
Master, Lock 6.....	do	Peter Paxton.....	1 do	47 00	47 00



## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 1.—Con</i>				\$ cts.	\$ cts.
Assistant.....	Nov., 1886	Jno. Daley.....	1 month...	45 00	45 00
do .....	do	Chas. P. Sabine.....	1 do ...	45 00	45 00
do .....	do	Chas. Newbold.....	1 do ...	45 00	45 00
Master, Bridge 5.....	do	Wm. Elliott.....	1 do ...	45 00	45 00
Assistant.....	do	Geo. Spooner.....	1 do ...	45 00	45 00
Master, Lock 7.....	do	C. B. Hare.....	1 do ...	47 00	47 00
Assistant.....	do	M. Sullivan.....	1 do ...	45 00	45 00
do .....	do	Wm. Boyle.....	1 do ...	45 00	35 00
do .....	do	R. Freeman.....	1 do ...	45 00	45 00
Master, Bridge 6.....	do	Jas. W. Grant.....	1 do ...	45 00	45 00
Assistant.....	do	Alex. Stewart.....	1 do ...	45 00	45 00
Master, Lock 8.....	do	M. Hayden.....	1 do ...	47 00	47 00
Assistant.....	do	Wm. Reed.....	1 do ...	45 00	45 00
do .....	do	R. Secord.....	1 do ...	45 00	45 00
do .....	do	M. McCormack.....	1 do ...	45 00	45 00
Master, Lock 9.....	do	R. H. Watson.....	1 do ...	47 00	47 00
Assistant.....	do	Alex. Soper.....	1 do ...	45 00	45 00
do .....	do	J. C. Longley.....	1 do ...	45 00	45 00
do .....	do	Alex. Bradt.....	1 do ...	45 00	45 00
Master, Bridge 7.....	do	Jas. Whitten.....	1 do ...	45 00	45 00
Assistant.....	do	Jno. Cushman.....	1 do ...	45 00	45 00
Master, Lock 10.....	do	J. Bradley.....	1 do ...	47 00	47 00
Assistant.....	do	J. Mulvey.....	1 do ...	45 00	45 00
do .....	do	Henry Hare.....	1 do ...	45 00	45 00
do .....	do	T. Nelson.....	1 do ...	45 00	45 00
Master, Bridge 8.....	do	Arthur Cain.....	1 do ...	45 00	45 00
Assistant.....	do	John McPeachie.....	1 do ...	45 00	45 00
Master, Lock 11.....	do	J. Rynoids.....	1 do ...	47 00	47 00
Assistant.....	do	A. Wilson.....	1 do ...	45 00	45 00
do .....	do	W. P. Burleigh.....	1 do ...	45 00	45 00
do .....	do	J. Webster.....	1 do ...	45 00	45 00
Master, Lock 12.....	do	Wm. Strong.....	1 do ...	47 00	47 00
Assistant.....	do	E. Bradley.....	1 do ...	45 00	45 00
do .....	do	F. Wingham.....	1 do ...	45 00	45 00
do .....	do	Jas. McBride.....	1 do ...	45 00	45 00
Master, Lock 13.....	do	T. Keating.....	1 do ...	47 00	47 00
Assistant.....	do	Jos. Turner.....	1 do ...	45 00	45 00
do .....	do	J. A. Bradley.....	1 do ...	45 00	45 00
do .....	do	Geo. Millwae.....	1 do ...	45 00	45 00
<i>Division No. 2.</i>					
Master, Bridge 9.....	do	John Black.....	1 do ...	45 00	45 00
Assistant.....	do	John Clark.....	1 do ...	45 00	45 00
Master, Lock 14.....	do	Con. Nestor.....	1 do ...	47 00	47 00
Assistant.....	do	Jas. Winton.....	1 do ...	45 00	45 00
do .....	do	Thos. Flynn.....	1 do ...	45 00	45 00
do .....	do	J. Strong.....	1 do ...	45 00	45 00
Master, Lock 15.....	do	Thos. Aikins.....	1 do ...	47 00	47 00
Assistant.....	do	J. McAuley.....	1 do ...	45 00	45 00
do .....	do	W. J. Wilson.....	1 do ...	45 00	45 00
do .....	do	Robt. Boyle.....	1 do ...	45 00	45 00
Master, Lock 16.....	do	T. Burley.....	1 do ...	47 00	47 00
Assistant.....	do	S. Bradley.....	1 do ...	45 00	45 00
do .....	do	J. Holland.....	1 do ...	45 00	45 00
do .....	do	A. Moran.....	1 do ...	45 00	45 00
Master, Lock 17.....	do	M. Coody.....	1 do ...	47 00	47 00
Assistant.....	do	F. Sherman.....	1 do ...	45 00	45 00
do .....	do	M. Glynn.....	1 do ...	45 00	45 00
do .....	do	M. Doohier.....	1 do ...	45 00	45 00
Master, Lock 18.....	do	J. H. Pearson.....	1 do ...	47 00	47 00
Assistant.....	do	G. Newton.....	1 do ...	45 00	45 00
do .....	do	T. Hanna.....	1 do ...	45 00	45 00
do .....	do	J. Cook.....	1 do ...	45 00	45 00



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 2—Con.</i>	1886.			\$ cts.	\$ cts.
Master, Lock 19.....	November.	R. Gridale.....	1 month...	47 00	47 00
Assistant.....	do	F. Johnson.....	1 do	45 00	45 00
do	do	J. J. Duffy.....	1 do	45 00	45 00
do	do	F. Hoshcke.....	1 do	45 00	45 00
Master, Lock 20.....	do	J. Reuter.....	1 do	47 00	47 00
Assistant.....	do	J. McMan.....	1 do	45 00	45 00
do	do	John Collins.....	1 do	45 00	45 00
do	do	Thos. Friel.....	1 do	45 00	45 00
Master, Lock 21.....	do	F. C. Berriman.....	1 do	47 00	47 00
Assistant.....	do	John Cole.....	1 do	45 00	45 00
do	do	Jas. Ellis.....	1 do	45 00	45 00
do	do	A. Clark.....	1 do	45 00	45 00
Master, Lock 22.....	do	Wm. Hanna.....	1 do	47 00	47 00
Assistant.....	do	Wm. Boyle.....	1 do	45 00	45 00
do	do	P. McNamara.....	1 do	45 00	45 00
do	do	Hy. Phillips.....	1 do	45 00	45 00
Master, Lock 23.....	do	T. Bonewell.....	1 do	47 00	47 00
Assistant.....	do	T. W. Smerdon.....	1 do	45 00	45 00
do	do	T. Commarford.....	1 do	45 00	45 00
do	do	J. Corbett.....	1 do	45 00	45 00
Master, Lock 24.....	do	R. Campbell.....	1 do	47 00	47 00
Assistant.....	do	M. Henderson.....	1 do	45 00	45 00
do	do	T. Bradley.....	1 do	45 00	45 00
do	do	Hy. Kern.....	1 do	45 00	45 00
Master, Bridge 10.....	do	Wm. Fleming.....	1 do	45 00	45 00
Assistant.....	do	F. Galbraith.....	1 do	45 00	45 00
Master, Lock 25.....	do	M. M. McCarthy.....	1 do	47 00	47 00
Assistant.....	do	Geo. Detlon.....	1 do	45 00	45 00
do	do	Sam. Campbell.....	1 do	45 00	45 00
do	do	Robert Wright.....	1 do	45 00	45 00
Master, Bridge 12.....	do	G. A. Thomas.....	1 do	45 00	45 00
Assistant.....	do	Robt. Camp.....	1 do	45 00	45 00
Master, Guard Lock.....	do	C. X. Collier.....	1 do	42 00	42 00
Assistant.....	do	Sam. Fraser.....	1 do	45 00	45 00
do	do	Fred. Lay.....	1 do	45 00	45 00
do	do	James Cook.....	1 do	45 00	45 00
Master, Bridge 13.....	do	Richard Higgins.....	1 do	45 00	45 00
Assistant.....	do	William Upper.....	1 do	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14.....	do	D. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	G. A. Upper.....	1 do	40 00	40 00
Master, Bridge 15.....	do	B. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	G. Thompson.....	1 do	45 00	45 00
Port Robinson Ferry.....	do	R. Stevenson.....	1 do	30 00	30 00
do Lock.....	do	J. W. McCopper.....	1 do	47 00	47 00
Assistant.....	do	Jas. Walsh.....	1 do	45 00	45 00
Master, Bridge 16.....	do	Jas. Edmonds.....	1 do	45 00	45 00
Assistant.....	do	G. P. Misnes.....	1 do	45 00	45 00
<i>Division No. 4.</i>					
Welland Lock.....	November.	W. Wilson.....	1 month...	45 00	45 00
Master, Bridge 17.....	do	Jas. Foster.....	1 do	45 00	45 00
Assistant.....	do	L. J. Brennan.....	1 do	45 00	45 00
Master, Bridge 19.....	do	Chas. Hannah.....	1 do	45 00	45 00
Assistant.....	do	Alex. Hannah.....	1 do	45 00	45 00
Humberstone Ferry.....	do	M. Traynor.....	1 do	30 00	30 00
Master, Bridge 21.....	do	E. Boneberg.....	1 do	45 00	45 00
Assistant.....	do	J. Shisler.....	1 do	45 00	45 00
Port Colborne Lock and Bridge..	do	John Henshaw.....	1 do	42 00	42 00
do do	do	John Cook.....	1 do	42 00	42 00
do do	do	John Stevens.....	1 do	42 00	42 00

PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Port Colborne Lock and Bridge...	November	Wm. Aikens.....	1 month...	42 00	42 00
do do	do	Jas. Dunlap.....	1 do	42 00	42 00
Port Colborne Ferry.....	do	John Bradley.....	1 do	42 00	42 00
Signalling and controlling safe	do	J. McMurray.....	30 days...	1 50	45 00
passage of vessels through	do	Jas. Nixon.....	30 do	1 50	45 00
old aqueduct at Welland,	do	Wm. Nixon.....	30 do	1 50	45 00
night and day.	do	R. Simpson.....	30 do	1 50	45 00
MACHINISTS.					
Division No. 1.					
Keeping machinery connected	November	Samuel Houston.....	25 days	2 00	50 00
with lock gates and waste	do	Ed. Newall, h. & wg.	24½ do	1 50	36 75
weirs in proper order through-					
out.					
Division No. 2.					
Keeping machinery connected	November	V. Mann.....	30½ days...	2 00	61 00
with lock gates and waste	do	Thos. Ryan.....	29½ do	1 75	51 63
weirs in proper order through-	do	J. H. Booth, h. & wg	24½ do	1 50	36 75
out.					
Diver.....	do	Ed. Smiley.....	16½ do	2 00	33 00
					\$8,225 69

## ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Nov. 1-30...	To G. N. W. Telegraph Co., St. Catharines—Telegrams during month.....		20 33
do 30...	G. N. W. Telegraph Co., Port Colborne—Telegrams from June 1st, 1886, to date.....		7 75
do 30...	C. P. R. Telegraph Co., St. Catharines—Telegrams during month.....		8 57
do 1-30...	B. C. Fairfield, St. Catharines—Postage stamps.....		7 75
do 1-30...	Journal Printing Co., St. Catharines— Advertising list of vessels passing through.....	5 80	
	do closing canals.....	8 50	
do 29...	Mail Printing Co., Toronto—Advertising closing canals, 2 insertions.....		14 30
do 2...	Wm. Chelews, St. Catharines—187½ galls. coal oil, at 23c.....		7 00
do 1-30...	Wm. N. Garden, Welland— 54 galls. coal oil, at 30 cts., \$16.20; 1 doz. chimneys, \$1. ½ doz. chimneys, 50 cts.; wick, 23; matches, 13 cts.....	17 20 0 76	43 12
do 1-30...	John Mathews, Port Colborne— 34 galls. coal oil, at 30 cts., \$10.20; 2 cords wood, \$10.. 2 deck brooms, 70 cts.; lamp wick, 26 cts.....	20 20 0 96	17 96
do 30...	John Devaney, St. Catharines— 20,570 lbs. furnace coal, at \$6.00 per ton..... 16,070 lbs. stove coal, at 6.50 do .....	61 71 52 23	21 16
	2,000 lbs. do 6.25 do .....	6 25	
	(Above for canal office and lock bridge tenders.)		120 19
do 30...	Rich. Leeson, Merriton—1½ cords of hardwood, at \$5.50.....		63 25
do 20...	Albert Hannah, Welland Junction—2 cords of wood, at \$4.....		8 00
do 30...	Liverpool, London and Globe Insurance Co., J.W. Keating, Agent, St. Catharines—Premium of insurance on Government sitting scow, renewing policy for one year....		20 00
do 10...	M. L. Polte & Co., Toronto—1 Ontario Directory.....		5 00
do 30...	Grand Trunk Railway Co., St. Catharines—1 month's wages 8 bridge tenders on railway bridges, at \$45 each.....		360 00
do 30...	W. W. Wait, St. Catharines—Use of horse and waggon delivering oil and stores along line of canal to Marlatt's Bridge.....		20 00
do 20...	R. D. Dunn, Paymaster, St. Catharines— Horse and buggy half a day, paying men.....	1 50	
do 22...	Team do do .....	4 00	
do 22...	Expenses assistant and team .....	1 25	
do 23...	Railway fares and hack hire, Welland and return.....	1 55	
do 24-25...	do Dunnville and return.....	2 60	
do 10-26...	3 days' board and lodging for self, away from home acquitting October pay-list and account, at \$3.....	9 00	
do 30...	Bell Telephone, Welland—Telephone services.....		19 90
do 30...	O. H. Garner, Welland—Telegrams during month.....		14.80
do 30...	4½ weeks' board and lodging for O. H. Carter, in charge of old aqueduct, Welland, at \$4.....		6 46
	A. D. White, Welland— Horse and buggy to Merriton.....	2 50	17 14
	do do Port Robinson.....	1 50	
May 19...	Team half a day.....	3 00	
Sept. 19 ..	Horse and buggy, Junction twice.....	2 00	
Nov. 20...			9 00
Oct. 9 }			
Nov. 6 }			
do 30...	G. H. Bugar, Welland—Use of office for paymaster paying canal men, once a month for last 4 years, at \$6 per an. ....		24 00
do 27...	The Globe Printing Co., Toronto—Advertising closing canals.....		4 50
			840 18



PAY-LIST in duplicate of persons employed on the Old Welland and Feeder Canal during the month of November, 1886, to pay Permanent Establishment and Account, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount
				\$ cts.	\$ cts.
Overseer.....	Nov., 1886.	J. B. Smyth.....	1 month...	100 00	100 00
Master, Lock 1 and Bridge .....	do	Sam. Duffin.....	1 do	42 00	42 00
Assistant.....	do	Wm. L. Smith.....	1 do	42 00	42 00
do .....	do	R. Edgraft .....	1 do	42 00	42 00
do .....	do	John House .....	1 do	42 00	42 00
Master, Lock 2 and Bridge.....	do	Walter Weaver.....	1 do	42 00	42 00
Assistant.....	do	T. Johnson.....	1 do	42 00	42 00
do .....	do	W. H. Charles.....	1 do	42 00	42 00
do .....	do	John Sullivan.....	1 do	42 00	42 00
St. Paul Street Bridge.....	do	Wm. McClorey .....	1 do	38 00	38 00
Assistant.....	do	Tim. Sullivan .....	1 do	38 00	38 00
Master, Lock 3.....	do	Alex. Walter.....	1 do	38 00	38 00
Assistant.....	do	Fred Sberer .....	1 do	38 00	38 00
Master, Lock 4 and Bridge.....	do	James Livingstone.....	1 do	42 00	42 00
Assistant.....	do	James Boyle .....	1 do	42 00	42 00
Master, Locks 5, 6, 7 and Bridge..	do	Robert Boyle.....	1 do	42 00	42 00
Assistant.....	do	Micheal White.....	1 do	42 00	42 00
Master, Locks 8, 9, 10 and 11.....	do	Barney Clark.....	1 do	38 00	38 00
Assistant.....	do	C. W. Bradley.....	1 do	38 00	38 00
Master, Locks 12, 13, 14, 15 and bd.	do	James Cogan.....	1 do	38 00	38 00
Assistant.....	do	Martin Nestor.....	1 do	38 00	38 00
Master, Locks 16, 17 and 18.....	do	Barnett Darby.....	1 do	38 00	38 00
Assistant.....	do	Robert Gibson.....	1 do	38 00	38 00
Master, Locks 19, 20 and 21.....	do	Ed. McLaughlin.....	1 do	38 00	38 00
Assistant.....	do	Robert Bradley.....	1 do	38 00	38 00
Master, Locks 22 and Keefer's Bd.	do	John McNamara.....	1 do	38 00	38 00
Assistant.....	do	A. W. Bradley.....	1 do	38 00	38 00
Master, Locks 23, 24 and Bridge..	do	John Neil.....	1 do	42 00	42 00
Assistant.....	do	D. Ryckman.....	1 do	38 00	38 00
Master, Lock 25 and Guard Lock.	do	John Fluellan.....	1 do	38 00	38 00
Assistant.....	do	Rufus Swazzie.....	1 do	38 00	38 00
Hurst's Bridge.....	do	Jacob Rentner.....	1 do	38 00	38 00
Marlatt's do .....	do	Nelson Higgins.....	1 do	38 00	38 00
Allanburgh Bridge.....	do	A. H. Upper.....	1 do	38 00	38 00
do Lock.....	do	Wm. Higgins.....	1 do	38 00	38 00
do Asst. Lock.....	do	Lewis Mosier.....	1 do	38 00	38 00
do Guard Lock.....	do	Aaron Higgins.....	1 do	38 00	38 00
do Asst. Guard Lock.....	do	Oscar Upper.....	1 do	38 00	38 00
Foreman on Banks.....	do	John Gearin.....	1 do	38 00	38 00
<i>Feeder Division.</i>					
Overseer.....	do	John E. Scott.....	1 do	800 per an.	66 67
Junction Lock.....	do	George Hannah.....	1 do	38 00	38 00
Feeder, Float Bridge.....	do	John Henderson.....	1 do	10 00	10 00
Stromness do .....	do	George Harris.....	1 do	38 00	38 00
Port Maitland Lock.....	do	M. Corcoran.....	1 do	38 00	38 00
do Asst. Lock.....	do	Wm. Brennan.....	1 do	38 00	38 00
Reg. of water at Dunnville.....	do	Charles Trush.....	1 do	38 00	38 00
					1,862 67

### ACCOUNTS Chargeable to Old Welland and Feeder Canal Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1886.			
Nov. 30.....	To Dunnville Electric Light Co., Dunnville—60 lightings at Swing Bridge and Guard Lock, at 16½c.....		1,000 00
Total.....			1,000 00

**PAY-LIST** in duplicate of Persons employed on the Welland Canal during the month of December, 1886, to pay permanent establishment and accounts chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation.
	1886.			\$ cts.	\$ cts.	\$ cts.
Superintendent.....	December.	Wm. Ellis.....	1 month..	2,900 00	241 67	14 50
Paymaster.....	do	R. D. Dunn.....	1 do	1,400 00	116 67	7 00
Accountant.....	do	J. E. Lawrence....	1 do	1,000 00	83 33	
<i>Harbour Masters.</i>						
Port Dalhousie.....	do	Wm. Cooke.....	1 month..	750 00	62 50	3 75
Port Colborne.....	do	C. H. Carter.....	1 do	750 00	62 50	3 75
<i>Overseers.</i>						
Division No. 1.....	do	J. G. Demare.....	1 month..	100 00	100 00	6 00
do No. 2.....	do	Jas. Dell.....	1 do	75 00	75 00	
do No. 3.....	do	A. Hamilton.....	1 do	60 00	60 00	3 60
do No. 4.....	do	T. R. Secord.....	1 do	65 00	65 00	
Storekeeper, &c.....	do	W. W. Wait.....	1 do	65 00	65 00	
Messenger, &c.....	do	Thos. J. Hartley...	31 days....	1 25	38 75	
<i>Division No. 1.</i>						
Port Dalhousie Ferry.....	do	Frank Darby.....	27 days....	1 40	37 80	
Master, Lock 1.....	do	J. M. Woodall.....	1 month..	38 00	40 00	1 55
do	do	do	do	42 00		
Assistant.....	do	Geo. Howe.....	do	45 00	22 50	1 41
do	do	John Paxton.....	do	45 00	22 50	1 41
do	do	T. Williams.....	do	45 00	22 50	
Master, Bridge 1.....	do	Frank Darby.....	do	45 00	22 50	
Assistant.....	do	P. Oneath.....	do	45 00	22 50	
Master, Lock 2.....	do	Alph. Kelley.....	do	47 00	23 50	
Assistant.....	do	Geo. Bowman.....	do	45 00	22 50	
do	do	B. Merritt.....	do	45 00	22 50	
do	do	R. Hutton.....	do	45 00	22 50	
Master, Lock 3.....	do	J. Johnson.....	do	47 00	23 50	
Assistant.....	do	Jas. Keys.....	do	45 00	22 50	
do	do	C. Gorman.....	do	45 00	22 50	1 41
do	do	Jas. Grogan.....	do	45 00	22 50	
Master, Bridge 2.....	do	John Flynn.....	do	45 00	22 50	1 41
Assistant.....	do	H. Alexander.....	do	45 00	22 50	
Master, Lock 4.....	do	Jos. Franklin.....	do	47 00	23 50	
Assistant.....	do	Samuel Hopkins....	do	45 00	22 50	
do	do	Wm. Altoff.....	do	45 00	22 50	
do	do	John Woodall.....	do	45 00	22 50	
Master, Lock 5.....	do	Thos. Scott.....	do	47 00	23 50	
Assistant.....	do	J. Pennington.....	do	45 00	22 50	
do	do	Thos. Jones.....	do	45 00	22 50	
do	do	John Wilde.....	do	45 00	22 50	
Master, Bridge 3.....	do	G. W. Brownlee...	do	45 00	22 50	
Assistant.....	do	M. Moriarity.....	do	45 00	22 50	
Master, Lock 6.....	do	Peter Paxton.....	do	47 00	23 50	
Assistant.....	do	John Daley.....	do	45 00	22 50	
do	do	Chas. Newbold.....	do	45 00	22 50	
do	do	Chas. Sabine.....	do	45 00	22 50	
Master, Bridge 5.....	do	Wm. Elliott.....	do	45 00	22 50	
Assistant.....	do	Geo. Spooner.....	do	45 00	22 50	
Master, Lock 7.....	do	C. B. Hare.....	do	47 00	23 50	1 47
Assistant.....	do	M. Sullivan.....	do	45 00	22 50	
do	do	Wm. Boyle.....	do	45 00	22 50	
do	do	R. Freeman.....	do	45 00	22 50	1 41
Master, Bridge 6.....	do	Jas. W. Grant.....	do	45 00	22 50	
Assistant.....	do	Alex. Stewart.....	do	45 00	22 50	
Master, Lock 8.....	do	Arch. Hayden.....	do	47 00	23 50	
Assistant.....	do	Wm. Reid.....	do	45 00	22 50	
do	do	R. Secord.....	do	45 00	22 50	
do	do	M. McCormick.....	do	45 00	22 50	



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
<i>Division No. 1.—Ccn.</i>	1886.			\$ cts.	\$ cts.	\$ cts.
Master, Lock 9.....	December.	R. H. Watson.....	1 month..	47 00	23 50	
Assistant.....	do	Alex. Soper.....	do	45 00	22 50	
do	do	J. C. Longley.....	do	45 00	22 50	
do	do	Alex. Bradt.....	do	45 00	22 50	
Master, Bridge 7.....	do	Jas. Whitten.....	do	45 00	22 50	
Assistant.....	do	Thos. Cushman.....	do	45 00	22 50	
Master, Lock 10.....	do	James Bradley.....	do	47 00	23 50	1 47
Assistant.....	do	James Mulvey.....	do	45 00	22 50	1 41
do	do	Hy. Hare.....	do	45 00	22 50	1 41
do	do	Thos. Wilson.....	do	45 00	22 50	
Master, Bridge 8.....	do	Arthur Cain.....	do	45 00	22 50	
Assistant.....	do	M. McGeakie.....	do	45 00	22 50	
Master, Lock 11.....	do	Jas. Reynolds.....	do	47 00	23 50	
Assistant.....	do	Alex. Wilson.....	do	45 00	22 50	1 41
do	do	W. Burleigh.....	do	45 00	22 50	
do	do	James Websher.....	do	45 00	22 50	
Master, Lock 12.....	do	Wm. Strong.....	do	47 00	23 50	1 47
Assistant.....	do	E. Bradley.....	do	45 00	22 50	
do	do	F. Mughan.....	do	45 00	22 50	
do	do	Jas. McBride.....	do	45 00	22 50	
Master, Lock 13.....	do	Thos. Keating.....	do	47 00	23 50	
Assistant.....	do	Jos. Turner.....	do	45 00	22 50	
do	do	J. H. Bradley.....	do	45 00	22 50	
do	do	Geo. Mullard.....	do	45 00	22 50	
<i>Division No. 2.</i>						
Master, Bridge 9.....	do	Jno. Black.....	do	45 00	22 50	
Assistant.....	do	Jno. Clark.....	do	45 00	22 50	
Master, Lock 14.....	do	Con. Nestor.....	do	47 00	23 50	
Assistant.....	do	J. Winton.....	do	45 00	22 50	
do	do	Thos. Flynn.....	do	45 00	22 50	1 41
do	do	Thos. Strong.....	do	45 00	22 50	
Master, Lock 15.....	do	Thos. Aikens.....	do	47 00	23 50	
Assistant.....	do	J. McAuley.....	do	45 00	22 50	1 41
do	do	N. J. Wilson.....	do	45 00	22 50	
do	do	R. Boyle.....	do	45 00	22 50	
Master, Lock 16.....	do	T. Burley.....	do	47 00	23 50	
Assistant.....	do	S. Bradley.....	do	45 00	22 50	
do	do	A. Moran.....	do	45 00	22 50	1 41
do	do	Jno. Holland.....	do	45 00	22 50	
Master, Lock 17.....	do	Arch. Coody.....	do	47 00	23 50	
Assistant.....	do	F. Sherman.....	do	45 00	22 50	
do	do	M. Doohar.....	do	45 00	22 50	
do	do	M. Glynn.....	do	45 00	22 50	
Master, Lock 18.....	do	J. H. Pierson.....	do	47 00	23 50	
Assistant.....	do	Geo. Newton.....	do	45 00	22 50	
do	do	T. Hanna.....	do	45 00	22 50	
do	do	Jas. Cook.....	do	45 00	22 50	
Master, Lock 19.....	do	R. Grisdale.....	do	47 00	23 50	
Assistant.....	do	F. Johnson.....	do	45 00	22 50	
do	do	J. J. Duffy.....	do	45 00	22 50	
do	do	F. Hoshke.....	do	45 00	22 50	
Master, Lock 20.....	do	Jacob Reuter.....	do	47 00	23 50	
Assistant.....	do	T. McMann.....	do	45 00	22 50	
do	do	John Collins.....	do	45 00	22 50	1 41
do	do	Thos. Freel.....	do	45 00	22 50	1 41
Master, Lock 21.....	do	J. O. Berriman.....	do	47 00	23 50	
Assistant.....	do	John Cole.....	do	45 00	22 50	
do	do	James Ellis.....	do	45 00	22 50	
do	do	A. Clark.....	do	45 00	22 50	
Master, Lock 22.....	do	Wm. Hannah.....	do	47 00	23 50	
Assistant.....	do	Wm. Boyle.....	do	45 00	22 50	
do	do	P. McNamara.....	do	45 00	22 50	1 41
do	do	Henry Phillip.....	do	45 00	22 50	



PAY LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
<i>Division No. 2—Con.</i>	1886.			\$ cts.	\$ cts.	\$ cts.
Master, Lock 23.....	December.	T. Bonewell.....	1 month..	47 00	23 50	
Assistant.....	do	J. Somerdon.....	do	45 00	22 50	
do .....	do	J. Corbett.....	do	45 00	22 50	1 41
do .....	do	J. Commorford.....	do	45 00	22 50	1 41
Master, Lock 24.....	do	R. Campbell.....	do	47 00	23 50	
Assistant.....	do	M. Henderson.....	do	45 00	22 50	
do .....	do	T. Bradley.....	do	45 00	22 50	
do .....	do	Henry Kerm.....	1 do	45 00	45 00	
Master, Bridge 10 .....	do	Wm. Flemming.....	1 do	45 00	45 00	
Assistant.....	do	Fr. Galbraith.....	do	45 00	22 50	
Master, Lock 25.....	do	M. McCarthy.....	1 do	47 00	47 00	1 76
Assistant.....	do	Geo. Delter.....	do	45 00	22 50	
do .....	do	S. Campbell.....	1 do	45 00	45 00	
do .....	do	Robt. Wright.....	do	45 00	22 50	
Master, Bridge 12.....	do	Geo. A. Thomas.....	do	45 00	22 50	
Assistant.....	do	Robert Camp.....	do	45 00	22 50	
Master, Guard Lock.....	do	C. H. Collier.....	do	42 00	21 00	1 31
Assistant.....	do	Sam Fraser.....	do	45 00	22 50	
do .....	do	Frederick Lay.....	do	45 00	22 50	1 41
do .....	do	James Cook.....	do	45 00	22 50	
Master, Bridge 13.....	do	R. Higgins.....	do	45 00	22 50	1 41
Assistant.....	do	Wm. Upper.....	do	45 00	22 50	
<i>Division No. 3.</i>						
Master, Bridge 14.....	do	Daniel O'Leary.....	do	45 00	22 50	1 41
Assistant.....	do	G. A. Upper.....	do	40 00	20 00	
Master, Bridge 15.....	do	Bart. O'Leary.....	do	45 00	22 50	1 41
Assistant.....	do	Geo. Thompson.....	do	45 00	22 50	1 41
Port Robinson Ferry.....	do	R. Stevenson.....	do	30 00	15 00	
do Lock.....	do	J. McCoppin.....	do	45 00	22 50	1 47
Assistant.....	do	Jas. Walsh.....	do	45 00	22 50	1 41
Master, Bridge 16.....	do	Jas. Edmonds.....	do	45 00	22 50	1 41
Assistant.....	do	G. P. Misner.....	do	45 00	22 50	
Welland Lock.....	do	Wm. Wilson.....	do	45 00	22 50	
Master, Bridge 17.....	do	Jas. Foster.....	do	45 00	22 50	1 41
Assistant.....	do	L. J. Brenen.....	do	45 00	22 50	
Master, Bridge 19.....	do	Alex. Hannah.....	do	45 00	22 50	1 41
Assistant.....	do	Chas. Hannah.....	do	45 00	22 50	1 41
Humberstone Ferry.....	do	M. Traynor.....	do	30 00	15 00	
Master, Bridge 21.....	do	E. Bonabery.....	do	45 00	22 50	1 41
Assistant.....	do	I. Shisler.....	do	45 00	22 50	
Port Colborne Lock.....	do	John Henshaw.....	do	38 00	40 00	1 55
do do .....	do	do	do	42 00		
do Bridge.....	do	John Cook.....	do	42 00	21 00	1 31
do do .....	do	John Stevens.....	do	42 00	21 00	1 31
do do .....	do	Wm. Aikens.....	do	42 00	21 00	1 31
do do .....	do	J. Dunlap.....	do	42 00	21 00	
do Ferry.....	do	John Bradley.....	1 do	42 00	42 00	1 57
In charge of iron and steel bridges, also steam pump, &c.....	do	W. Chatfield.....	1 do	75 00	75 00	
Signalling and controlling safe passage of vessels passing through old aqueduct and watching same, &c., night and day.....	do	Jos. McMurray.....	15 days...	1 50	42 50	
do do .....	do	do	16 do	1 25		
do do .....	do	William Nixon.....	15 do	1 50	42 50	
do do .....	do	do	16 do	1 25		
do do .....	do	James Nixon.....	15 do	1 50	22 50	
do do .....	do	Robert Simpson.....	15 do	1 50	22 50	
					4,711 22	94 22

## ACCOUNTS Chargeable to Welland Canal Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Dec. 1-31...	To G.N.W. Telegraph Co., St. Catharines—Telegrams for month.....		12 27
do 1-31...	G.N.W. Telegraph Co., Welland—Telegrams for December.....		1 94
do 31...	do do Port Robinson—Telegrams for November and December.....		1 71
do 31...	John Cloy, Lock 25, Thorold—Telephone service from October 1st to December 27th, 1886.....		4 50
do 1-31...	Bell Telephone Co., Welland—Telephone services.....		2 65
do 31...	do do Port Colborne—Telephone services from October 17th to December 31st, 1886.....		11 05
do 31...	L. G. Carter, Port Colborne—Postage for three months, ending December 31st, 1886.....		5 75
do 1-31...	B. C. Fairfield, St. Catharines—Postage.....		7 98
July 24...	D. W. Bixby, St. Catharines—Closet paper, 40c.; Oct., elastic bands, 25c.....		0 65
	To the News Publishing Co., St. Catharines—		
Oct. 21...	300 letter circulars.....	4 00	
do 25...	100 letter circulars.....	2 50	
Nov. 27...	Advertising closing canals.....	16 00	
Dec. 31...	Year's subscription ( <i>Daily News</i> ) 1886.....	4 00	20 50
	Henry Musson, Allanburg—		
Nov. 1-30...	14 gals. coal oil, at 30 cts.; 1 lock, at 35 cts.; 1½ box matches, at 23 cts.....	4 78	
Dec. 1-31...	Telegrams.....	0 90	5 68
	Wm. N. Garden, Welland—9½ gals. coal oil, at 30 cts.....		2 85
Nov. 29...	John Mathews, Port Colborne—		
Dec. 1-31...	4 gals. coal oil, at 30 cts.; 1 office lamp, at \$1.15.....	2 35	
	½ barrel salt, at \$2.50; ¼ cord wood, at \$1.25; burner, at 20 cts.....	1 70	4 05
do 1-31...	A. Thompson, Welland—2½ weeks' board and lodging for C. H. Carter, in charge of aqueduct, at \$4.....		10 28
do 1-15...	Grand Trunk Railway Co., St. Catharines—To ½ month's time for 8 railway bridges tender, at \$45 per month each.....		180 00
	St. Catharines and Welland Canal Gas Light Co., St. Catharines—		
do 31...	Instalment on contract.....	5,600 00	
	15,000 ft. gas used at collector's office, Port Dalhousie...	37 50	
	20,000 ft. gas used at Welland Canal office from Dec. 1, 1885, to Dec. 1, 1886.....	50 25	5,087 75
	J. G. Demare, Overseer, Port Dalhousie—		
do 31...	Use of horse and waggon in connection with overseer's duties, 3 months ending Dec. 31, 1886, at \$1.50 per annum.....	37 50	
	Paid postage and post cards per year 1886.....	6 52	44 02
	James Dell, Overseer, Thorold—		
do 31...	Use of horse and waggon in connection with overseer's duties, 3 months ending Dec. 31, at \$150 per annum....	37 50	
	3 months' rent of house, at \$8.....	24 00	61 50
	A. Hamilton, Overseer, Port Robinson—		
Dec. 31...	3 months' rent of house, at \$8.....	24 00	
	2 railway fares, St. Catharines and return, at 60c.....	1 20	
	Paid postage 3 months.....	0 55	
	Use of horse and waggon delivering coal oil and supplies during season of navigation.....	40 00	65 75

# **ACCOUNTS chargeable to Welland Canal Staff and Working Expenses—Continued.**

Date.	Nature of Work.	\$ cts.	\$ cts.
<b>1886.</b>			
<b>Oct.</b> 1-31...	Thos. R. Secord, Overseer, Port Colborne—		
	15 railway fares, Welland and return, at 45c.....	6 75	
<b>Nov.</b> 1-30...	6 do Air Line do at 20c.....	1 20	
	17 do Welland do at 45c.....	7 65	
<b>Dec.</b> 1-31...	7 do Air Line do at 20c.....	1 40	
	16 do Welland do at 45c.....	7 20	
	15 do Air Line do at 20c.....	3 00	
			27 20
<b>do</b> 30...	John Devaney, St. Catharines—		
	1 ton coal, \$6.50; 4 tons coal at \$6.75, \$27 00.....	33 50	
	1 ton coal .....	6 35	
			39 75
<b>Nov.</b> 1-30...	Wm. Pike, Thorold—		
	7,045 lbs. coal, at \$6.25.....	22 01	
	2,575 do \$6.50.....	8 17	
			30 28
<b>Dec.</b> 31...	James McCoppin, Postmaster, Port Robinson—1 year rent post office box (1886).....		1 00
<b>do</b> 31...	St. Catharines Post Office, St. Catharines—Box rents to July 1st, 1887 (3).....		3 00
<b>do</b> 1-31...	C. P. R. Telegraph Co., St. Catharines—Telegrams for month. ....		6 51
<b>do</b> 1-31...	W. W. Wait, St. Catharines—Use of horse and waggon delivering coal oil and stores along canal .....		20 00
<b>Oct.</b> 14...	R. D. Dunn, St. Catharines (sundry accounts)—		
	Paid city tax, watering street front of office .....	2 18	
	Paid Bank of Commerce telegrams, October, November and December (credit) .....	1 00	
	Paid hack hire for messenger, October and November.....	0 50	
	Paid bus do do .....	0 15	
	Paid freight on diving apparatus .....	0 40	
			4 23
<b>Dec.</b> 16...	R. D. Dunn, Paymaster, St. Catharines—		
<b>do</b> 17...	Horse and buggy half day paying men.....	1 50	
	do one do up canal .....	2 50	
<b>do</b> 18...	Expenses, assistant and horse.....	1 10	
<b>do</b> 20-21...	Railway fare and hack hire, Welland and return.....	1 55	
<b>do</b> 15-22...	do do Dunnville.....	2 85	
	3 days' board and lodging for self away from home, paying \$3.....	9 00	
			18 50
<b>do</b> 1-31...	Richard Leeson, Merriton—5 cords hard wood, at \$5.50.....		27 50
<b>do</b> 31...	William Ellis, Superintendent, St. Catharines—Quarterly allowance.....		75 00
<b>do</b> 3-10...	John Sutter, St. Catharines—8 tons coal, at \$6 25 .....		50 00
			<b>\$5,833 75</b>



**PAY-LIST** in duplicate of persons employed on the Old Welland Canal and Feeder during the month of December, 1886, to pay permanent establishment and accounts chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Superannuation.
	1886.			\$ cts.	\$ cts.	\$ cts.
Overseer.....	December.	J. B. Smyth.....	1 month...	100 00	100 00	6 00
Master, Lock 1 and Bridge..	do	Sam. Duffin.....	do	42 00	21 00	1 31
Assistant.....	do	Robt. Edgraft.....	do	42 00	21 00	1 31
do	do	Wm. L. Smyth.....	do	42 00	21 00	1 31
do	do	John House.....	do	42 00	21 00	
Master, Lock 2 and Bridge..	do	W. Weaver.....	do	38 00	40 00	1 55
do	do	do	do	42 00		
Assistant.....	do	T. Johnson.....	do	42 00	21 00	1 31
do	do	W. H. Charles.....	do	42 00	21 00	1 31
do	do	John Sullivan.....	do	42 00	21 00	1 31
St. Paul Street Bridge.....	do	Wm. McClay.....	do	38 00	19 00	1 18
Assistant.....	do	Tim. Sullivan.....	1 do	38 00	38 00	1 42
Master, Lock 3.....	do	Alex. Walker.....	do	38 00	19 00	1 18
Assistant.....	do	Fred. Sherer.....	do	38 00	19 00	1 18
Master, Lock 4, and Bridge..	do	J. Livingston.....	do	42 00	21 00	1 31
Assistant.....	do	Jas. Boyle.....	do	42 00	40 00	
do	do	do	do	35 00		
Master, Lock 5, 6, 7 and Br.	do	Robt. Boyle.....	do	42 00	21 00	1 31
Assistant.....	do	Michael White.....	do	42 00	21 00	1 31
Master, Locks 8, 9, 10 and 11	do	Bernard Clarke.....	1 do	38 00	38 00	1 42
Assistant.....	do	C. W. Bradley.....	1 do	38 00	38 00	1 42
Master, Locks 12, 13, 14, 15 and Bridge.....	do	Jas. Cogan.....	1 do	38 00	19 00	1 18
Assistant.....	do	Martin Nestor.....	1 do	38 00	38 00	1 42
Master, Locks 16, 17 and 18	do	B. Darby.....	1 do	38 00	19 00	1 18
Assistant.....	do	R. Gibson.....	1 do	38 00	19 00	1 18
Master, Locks 19, 20 and 21	do	E. McLaughlin.....	1 do	38 00	38 00	1 42
Assistant.....	do	R. Bradley.....	1 do	38 00	19 00	1 18
Master, Lock 22 and Keefer Bridge.....	do	John McNamara.....	1 do	38 00	19 00	1 18
Assistant.....	do	A. W. Bradley.....	do	38 00	19 00	1 18
Master, Locks 2, 3, 24 and Br	do	John Neil.....	do	38 00	40 00	1 55
do	do	do	do	42 00		
Assistant.....	do	D. Ryckman.....	1 do	38 00	19 00	1 18
Master, Lock 25 and Gd. Lk	do	J. Fluellyn.....	1 do	38 00	38 00	
Assistant.....	do	Rufus Swazzie.....	1 do	38 00	19 00	1 18
Hurst Bridge.....	do	Jacob Reuter.....	do	38 00	19 00	1 18
Marlatts Bridge.....	do	Nelson Higgins.....	do	38 00	19 00	1 18
Allanburg Bridge.....	do	A. H. Upper.....	1 do	38 00	19 00	1 18
do Lock	do	Wm. Higgins.....	1 do	38 00	38 00	Over 35 yrs
Assistant.....	do	Lewis Mosier.....	1 do	38 00	19 00	1 18
Allanburg Guard Lock.....	do	Aaron Higgins.....	do	38 00	19 00	Over 35 yrs
Assistant.....	do	Oscar Upper.....	do	38 00	19 00	
Foreman on banks.....	do	John Gearin.....	1 do	38 00	38 00	1 42
<b>Feeder Division.</b>						
Overseer.....	do	John E. Scott.....	1 do	800 00	66 67	4 00
Junction Lock.....	do	Geo. Hannah.....	1 do	38 00	38 00	1 42
Feeder, Flout Bridge.....	do	John Henderson.....	1 do	10 00	5 00	
Stromness Bridge.....	do	Geo. Harris.....	do	38 00	19 00	1 18
Port Maitland Lock.....	do	Michael Corcoran.....	do	38 00	19 00	1 18
Assistant.....	do	Wm. Brennan.....	1 do	38 00	19 00	
Registrar of Water at Dunnville.....	do	Chas. Trush.....	1 do	38 00	38 00	Over 35 yrs
					1,261 67	54 89

# ACCOUNTS Chargeable to Old Welland Canal and Feeder Staff Working Expenses.

Date.	Nature of Work.	\$ cts.	\$ cts.
1886.			
Dec. 31.....	To J. B. Smyth, Overseer, Merriton— Use of horse and waggon in connection with Overseer's duties, 3 months ending 31st Dec., 1886, at \$750 per annum.....	37 50	
	3 months' rent of house, at \$8.00.....	24 00	61 50
Oct. 31.....	To John E. Seott, Overseer, Dunnville— Horse and waggon to Junction, 2 days, at \$2.00.....	4 00	
	do do Port Maitland, Marshville, Bolton Ditch and Town Line, 7 days, at \$1.50c.....	10 50	
Nov. 30.....	Horse and waggon to Junction, 2 days, at \$2.00.....	4 00	
	do do Town Line, Bolton Ditch, Port Maitland and Marshville, 5 days, at \$1.50c.....	7 50	
Dec. 31.....	Horse and waggon to Junction, 2 days, at \$2.00.....	4 00	
	do do Port Maitland, Stromness, Town Line and Marshville, 5 days, at \$1.50c.....	7 50	37 50
do 31.....	To G. N. W. Telegraph Co., Dunnville—Telegrams from October to date.....		5 89
do 31.....	To Dunnville Post Office, Dunnville—Postage.....		9 14
Jan. 11.....	To J. H. Smith, Dunnville— Journal, 75c.; slate, 10c.; bands, 35c.; 2 doz. pens, 20c...	1 40	
	3 quires foolscap, 70c.; (16) $\frac{1}{2}$ doz. pen holders, 30c.....	1 00	
April 10.....	Pocket ledger, 35c.; (June 22) 4 quires foolscap, 50c.....	85	
July 15.....	Box envelopes, 50c.; 1 quire account paper, 25c.....	75	
Sept. 20.....	Ink, 30c.; red ink, 15c.....	45	
Dec. 21.....	Day book.....	25	4 70
do 31.....	To Robert White, Dunnville—Printing 200 blank forms of banking ground permits for Welland Canal Feeder....		4 00
do 31.....	To John Tarry, Dunnville—4 cords hard wood for office at Dunnville, at \$3.50c.....		14 00
do 31.....	To Dunnville Electric Light Co., Dunnville—62 lights for Guard Lock and Swing Bridge, at 16 $\frac{1}{2}$ c.....		10 33
do 11.....	To St. Catharines and Welland Canals Gas Light Co., St. Catharines— Gas supplied old Welland Canal for season 1886, as fol- lows:—2 lamps, Lock 1; 3 lamps, Lock 2; 2 lamps, Lock 3; 2 lamps, Lock 4; 9 lamps, 6 ft. burners, at \$30.....	270 00	
	2 lamps, 6 ft. burners, St. Paul Street Bridge, at \$20.00....	40 00	
	472 lbs. old cast iron pipe, at 1 $\frac{1}{4}$ c.....	5 90	315 90
do 4.....	To John Sutter, St. Catharines—1 ton coal.....		6 25
	Total.....		469 21

PAY-LIST in duplicate of persons employed on the Welland Canal during the month of January, 1887, to pay permanent establishments and accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1887.			\$ cts.	\$ cts.
Superintendent.....	January...	William Ellis.....	1 month...	2,900 00	241 67
Paymaster.....	do ...	Richard D. Dunn.....	1 do ...	1,400 00	116 67
Accountant.....	do ...	James E. Lawrence...	1 do ...	1,000 00	83 33
Harbor master, Port Dalhousie...	do ...	Wm. Cook.....	1 do ...	750 00	62 50
do Port Colborne.....	do ...	C. H. Carter.....	1 do ...	750 00	62 50
Overseers, Division No. 1.....	do ...	J. G. Demare.....	1 do ...	100 00	100 00
do do No. 2.....	do ...	James Dell.....	1 do ...	75 00	75 00
do do No. 3.....	do ...	A. Hamilton.....	1 do ...	60 00	60 00
do do No. 4.....	do ...	T. R. Secord.....	1 do ...	65 00	65 00
Storekeeper, &c.....	do ...	W. W. Wait.....	1 do ...	65 00	65 00
Messenger, &c.....	do ...	Thos. J. Hartley.....	31 days...	1 25	38 75
In charge of steel and iron bridge., also steam pumps, &c.	do ...	W. Chatfield.....	1 month...	75 00	75 00
Lock tenders in charge of waster, viz.:—Lock 1.....	do ...	J. M. Woodall.....	1 do ...	38 00	38 00
do 24.....	do ...	Wm. Fleming.....	1 do ...	45 00	45 00
do 24.....	do ...	M. Henderson.....	1 do ...	45 00	22 00
do 24.....	do ...	Henry Kerm.....	1 do ...	45 00	22 00
do 25.....	do ...	M. McCarthy.....	1 do ...	45 00	22 00
do 25.....	do ...	Sam. Campbell.....	1 do ...	45 00	22 00
do 25.....	do ...	Geo. Detlon.....	1 do ...	45 00	22 00
do 25.....	do ...	Robt. Wright.....	1 do ...	45 00	22 00
Port Colborne Lock.....	do ...	John Henshaw.....	1 do ...	38 00	38 00
Watching old aqueduct, Welland, night and day.....	do ...	John McMurray.....	15½ days...	1 25	19 38
do do .....	do ...	William Nixon.....	15½ do ...	1 25	19 38
do do .....	do ...	Robert Simpson.....	15½ do ...	1 25	19 38
do do .....	do ...	James Nixon.....	15½ do ...	1 25	19 38
					1,378 94



ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Jan. 31...	To Great North-Western Telegraph Co., Port Dalhousie—		
	Telegrams four months, Oct. and Nov., 1886.....		2 09
do 3...	Bell Telephone Co., St. Catharines—Telephone communi-		
	cations, Nov. and Dec., 1886.....		3 45
do 3...	Allan Brother., St. Catharines—1 cane chair for office .....		3 75
July 16...	H. Carlisle & Co, St. Catharines—		
	23½ yds. curtain shiff for shades, at 30c.....	7 05	
	9 fixtures, at 35c .....	3 15	
	9 pulls, at 5c.....	0 45	
	Making and putting up shades.....	3 00	
			13 65
Jan. 7-19...	Wm. N. Garden, Welland—4 galls. coal oil.....		1 20
do 29...	John Sutter, St. Catharines—23,550 lbs. furnace coal,		
	at \$6.50.....		70 65
do 3...	John Devaney, St. Catharines—3,830 lbs. stove coal, at		
	\$6.50 .....		12 45
do 24...	W. Pike, Thorald—2,450 lbs. stove coal, at \$1.25.....		7 65
Oct. 16-86 }	Henry Mimis, Welland—5 cords hard wood, at \$4.....		20 00
Jan. 28 }	St. Catharines Water Commissioners, St. Catharines—1		
do 1...	year's water rent.....		21 00
do 31...	W. W. Wait, St. Catharines—Use of horse and waggon		
	delivering coal oil .....		20 00
do 19...	R. D. Dunn, St. Catharines—		
	Horse and sleigh 1 day, paying men.....	2 50	
do 20...	do do .....	2 50	
do 21...	Expenses horse and assistant .....	1 10	
do 24-25...	Railway and hack hire, Welland and return.....	1 50	
do 18-25...	do Dunnville .....	2 85	
	3 days' board and lodging, self, away from home pay-		
	ing men, at \$3.....	9 00	
			19 45
			195 34

NUMBER of Pay-list 160. Pay-list in duplicate of persons employed on the Old Welland and Feeder Canal during the month of January, 1887, to pay permanent establishment chargeable to Staff and Working Expenses.

Capacity.	When employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Overseer.....	January...	John B. Smyth .....	1 month...	100 00	100 00
Regulating water, &c., lock 2 to 3	do ...	Walter Weaver.....	1 do ...	38 00	38 00
do 3 to 5	do ...	James Boyle.....	do ...	38 00	19 00
do 3 to 5	do ...	Fred Sherer .....	do ...	38 00	19 00
do 5 to 11	do ...	C. Bradley.....	do ...	38 00	19 00
do 5 to 11	do ...	Robert Boyle.....	do ...	38 00	19 00
do 11 to 16	do ...	Barnett Darby.....	do ...	38 00	19 00
do 11 to 16	do ...	James Cogan .....	do ...	38 00	19 00
do 16 to 20	do ...	Robert Gibson .....	do ...	38 00	19 00
do 16 to 20	do ...	Robert Bradley.....	do ...	38 00	19 00
do 20 to Gd. Lock	do ...	Rufus Swazzie.....	do ...	38 00	19 00
do 20 to Gd. Lock	do ...	D. Ryckman.....	do ...	38 00	19 00
do 20 to Gd. Lock	do ...	John Neil.....	do ...	38 00	19 00
Regulating water, &c., Allanburgh Lock.....	do ...	Wm. Higgins.....	1 do ...	38 00	38 00
Regulating water, &c., Allanburgh Lock.....	do ...	Lewis Mosier.....	$\frac{1}{2}$ do ...	38 00	19 00
In charge of waste weirs.....	do ...	John Fluellyn.....	1 do ...	38 00	38 00
do Higgins waste weirs	do ...	Nelson Higgins.....	$\frac{1}{2}$ do ...	38 00	19 00
do water and banks, }	do {	John Gearin.....	1 do ...	38 00	38 00
do 4 Mile Level.....	do {	A. W. Bradley.....	1 do ...	38 00	38 00
do water and banks }	do {	Michael White.....	do ...	38 00	19 00
do race.....	do {	Wm. McClorey.....	$\frac{1}{2}$ do ...	38 00	19 00
<i>Feeder Division.</i>					
Overseer.....	do ...	John E. Scott.....	1 do ...	800 00	66 67
Regulating water, Junction Lock.	do ...	Geo. Hannah.....	$\frac{1}{2}$ do ...	38 00	19 00
do Dunnville Lock	do ...	Chas. Trush.....	$\frac{1}{2}$ do ...	38 00	38 00
					698 67

ACCOUNTS chargeable to Old Welland and Feeder Canal Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
Jan. 1-31, 1887	To Dunnville Electric Light Company, Dunnville—62 lights for guard lock and new swing bridge, at 16 $\frac{1}{2}$ c.....		10 33
do 31, 1887	Robert White, Dunnville—3 years' subscription to the Dunnville "Gazette.".....	3 00	
Dec. 9, 1886	Advertising water out of canal .....	2 00	5 00
Nov. 20, 1886	Sheckluna & Co., St. Catharines—1 cord wood.....		6 50
Jan. 18, 1887	John Sutter, St. Catharines—1 ton stove coal .....		6 25
J. S. Sutt, St. Catharines—			
Oct. 19-20, 1886	1 ton coal .....	6 25	
	1 $\frac{1}{2}$ cords hard wood.....	9 00	15 25
			43 33

PAY-LIST in duplicate of persons employed on the Welland Canal during the month of February, 1887, to pay permanent establishments, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1887.			\$ cts.	\$ cts.
Superintendent .....	February..	Wm. Ellis.....	1 month...	2,900 00	241 67
Paymaster .....	do	R. D. Dunn.....	1 do	1,400 00	116 67
Accountant.....	do	J. E. Lawrence.....	1 do	1,000 00	83 33
Harbor master, Port Dalhousie...	do	Wm. Cook.....	1 do	750 00	62 50
do Port Colborne.....	do	C. H. Carter.....	1 do	750 00	62 50
Overseers Division No. 1.....	do	J. G. Demare.....	1 do	100 00	100 00
do do No. 2.....	do	Jas. Dell.....	1 do	75 00	75 00
do do No. 3.....	do	A. Hamilton.....	1 do	60 00	60 00
do do No. 4.....	do	T. R. Secord.....	1 do	65 00	65 00
Storekeeper, &c.....	do	W. W. Wait.....	1 do	65 00	65 00
Messenger.....	do	T. J. Hartley.....	28 days...	1 25	35 00
In charge of steel and iron bridges, also steam pumps, &c..	do	W. Chatfield.....	1 month...	75 00	75 00
Regulating water, Lock 1.....	do	J. M. Woodall.....	1 do	38 00	38 00
do do 24.....	do	M. Henderson.....	1 do	45 00	45 00
do do 24.....	do	Wm. Fleming.....	1 do	45 00	45 00
do do 25.....	do	Robert Wright.....	$\frac{1}{2}$ do	45 00	22 50
do do 25.....	do	Geo. Detlor.....	$\frac{1}{2}$ do	45 00	22 50
do do 25.....	do	Robert Camp.....	$\frac{1}{2}$ do	45 00	22 50
do do 25.....	do	James Cook.....	$\frac{1}{2}$ do	45 00	22 50
do Port Colborne lock.	do	John Henshaw.....	1 do	38 00	38 00
Watching old aqueduct at Welland, night and day.....	do	Jos. McMurray.....	14 days ..	1 25	17 50
do do .....	do	William Nixon.....	14 do	1 25	17 50
do do .....	do	Robert Simpson.....	14 do	1 25	17 50
do do .....	do	James Nixon.....	14 do	1 25	17 50
					1,367 67

### ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Feb. 1-28...	To G. N. W. Telegraph Co., St. Catharines—Telegrams.....		9 69
do 1-28...	C. P. R. Telegraph Co., St. Catharines—Telegrams.....		2 72
do 28...	B. C. Fairfield, St. Catharines—Postage stamps.....		5 00
do 26...	M. G. Keating, St. Catharines—Subscriptions "Chicago Inter Ocean," 1 year.....		8 00
do 17...	John Devaney, St. Catharines—2 tons stove coal.....		13 00
do 28...	Richard Woods, St. Catharines—2 mos. rent for house during July and August; overseer's house undergoing repairs, &c.....		20 00
do 1-28...	W. W. Wait, St. Catharines—Use of horse and waggon delivering coal oil, &c.....		20 00
do 7...	William Pike, Thorold—2,700 lbs. stove coal.....		8 77
do 17...	R. D. Dunn, paymaster, St. Catharines—Horse and buggy, 1 day, \$2.50; expenses assistant and horse, 75c.....	3 25	
do 18...	Railway and hack fare, Welland and return.....	1 50	
do 19...	Horse and buggy, $\frac{1}{2}$ day, paying.....	1 50	
do 21-22...	Railway and hack fare, Dunnville and return.....	2 60	
do 17-22...	3 days' board and lodging for self away from home, paying.....	9 00	
do 28...	G. N. W. Telegraph Co., Thorold—Telegrams from Jan. 1886 to date.....		17 85
			5 95
			\$ 110 98



**PAY-LIST** in duplicate of Persons employed on the Old Welland and Feeder Canal during the month of February, 1887, to pay Permanent Establishment and Accounts chargeable to staff and working expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
1887.					
Overseer.....	February..	Jno. B. Smyth.....	1 month...	100 00	100 00
Regulating water, Locks 2 to 3...	do	Walter Weaver.....	1 do ...	38 00	38 00
do do 3 to 5...	do	Fred Sherer.....	1 do ...	38 00	19 00
do do 3 to 5...	do	Tim Sullivan.....	1 do ...	38 00	19 00
do do 5 to 11...	do	James Boyle.....	1 do ...	38 00	19 00
do do 5 to 11...	do	A. W. Bradley.....	1 do ...	38 00	19 00
do do 11 to 16...	do	Barnett Darby.....	1 do ...	38 00	19 00
do do 11 to 16...	do	Martin Nestor.....	1 do ...	38 00	19 00
do do 16 to 20...	do	Ed. McLaughlin.....	1 do ...	38 00	19 00
do do 16 to 20...	do	Robert Gibson.....	1 do ...	38 00	19 00
do do 20 to Gd {	do	Jno. McNamara.....	1 do ...	38 00	19 00
do do 20 to Gd {	do	Rufus Swazzie.....	1 do ...	38 00	19 00
do do 20 to Gd {	do	John Neil.....	1 do ...	38 00	38 00
do Allanburg Lock	do	William Higgins.....	1 do ...	38 00	38 00
do do	do	Lewis Mosier.....	1 do ...	38 00	19 00
do do	do	A. H. Upper.....	1 do ...	38 00	19 00
In charge of waste wiers.....	do	John Fluellyn.....	1 do ...	38 00	38 00
do do	do	Nelson Higgins.....	1 do ...	38 00	19 00
do do	do	Richard Higgins.....	1 do ...	38 00	19 00
do water and banks, 4	do	John Gearin.....	1 do ...	38 00	38 00
mile lock.....	do	C. W. Bradley.....	1 do ...	38 00	38 00
In charge of hydraulic race.....	do	Mich. White.....	1 do ...	38 00	38 00
do do	do				
<i>Feeder Division.</i>					
Overseer.....	do	John E. Scott.....	1 do ...	800 00	66 67
Regulating water, Junction Lock	do	George Hannah.....	1 do ...	38 00	19 00
do Dunnville.....	do	Chas. Thrush.....	1 do ...	38 00	38 00
					\$755 67

PAY-LIST in duplicate of persons employed on the Welland Canal during the month of March, 1887, to pay Permanent Establishment and Account, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation.
				\$ cts.	\$ cts.	\$ cts.
Superintendent.....	Mar., 1887.	Wm. Ellis.....	1 month..	2,900 00	241 66	14 50
Paymaster.....	do	R. D. Dunn.....	1 do	1,400 00	116 66	7 00
Accountant.....	do	J. E. Laurence.....	1 do	1,000 00	83 34	.....
Harbor Master—						
Port Dalhousie.....	do	William Cook.....	1 do	750 00	62 50	3 75
Port Colborne.....	do	C. H. Carter.....	1 do	750 00	62 50	3 75
Overseers—						
Division No. 1.....	do	J. G. Demare.....	1 do	100 00	100 00	6 00
do 2.....	do	Jas. Dell.....	1 do	75 00	75 00	.....
do 3.....	do	A. Hamilton.....	1 do	60 00	60 00	3 60
do 4.....	do	T. R. Secord.....	1 do	65 00	65 00	.....
Storekeeper, &c.....	do	W. W. Wait.....	1 do	65 00	65 00	.....
Messenger, &c.....	do	Thos. J. Hartley.....	31 days...	1 25	38 75	.....
In charge steel and iron bridges, steam pump, &c.	do	W. Chatfield.....	1 month..	75 00	75 00	.....
Ferryman—						
Port Dalhousie Ferry.....	do	Frank Smith.....	7 days.....	1 40	9 80	.....
Humberston do.....	do	Mich. Traynor.....	1 month..	30 00	15 00	.....
Port Colborne do.....	do	John Bradley.....	1 do	42 00	42 00	.....
In charge of water, Lock 1	do	J. M. Woodall.....	1 do	38 00	38 00	1 42
do do 25	do	Wm. Fleming.....	do	45 00	22 50	.....
do do 25	do	M. Henderson.....	do	45 00	22 50	.....
do do 25	do	F. Bradley.....	do	45 00	22 50	.....
do do 25	do	Henry Keim.....	do	45 00	22 50	.....
do do 25	do	Robt. Camp.....	do	45 00	22 50	.....
do do 25	do	James Cook.....	do	45 00	22 50	.....
do do 25	do	William Upper.....	do	45 00	22 50	.....
do do 25	do	Geo. A. Thomas.....	do	45 00	22 50	.....
do Port Colborne Lock	do	John Henshaw.....	1 do	38 00	38 00	1 42
Watching old aqueduct,						
Welland, night and day	do	Jos. McMurray.....	15½ days...	1 25	19 38	.....
do do	do	Wm. Nixon.....	15½ do	1 25	19 38	.....
do do	do	Robt. Simpson.....	15½ do	1 25	19 38	.....
do do	do	Jas. Nixon.....	15½ do	1 25	19 38	.....
					1,445 73	41 44

# ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Name of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
March 31...	To J. G. Demare, Overseer Division 1, Port Dalhousie—Horse and waggon in connection with overseer's duties for 3 months ending March 31, 1887, at \$150 per annum.....		37 50
do 31...	James Dell, Overseer Division 2, Thorold—Horse and waggon in connection with overseer's duties for 3 months ending March 31, 1887, at \$150 per annum.....	37 50	
	3 months' rent of house at \$8.....	24 00	61 50
do 31...	A. Hamilton, Overseer, Division 3, Port Robinson—3 month's rent of house at \$8.....		24 00
do 31...	W. W. Wait, store-keeper, &c., St. Catharines—Horse and waggon delivering stores and coal oil.....		20 00
Jan. 1-31...	Thos. R. Secord, Overseer, Division 4, Port Colborne—1 railway fare to St. Catharines and return.....	1 20	
	16 do Welland do at 45c.....	7 20	
	8 do Air Line do at 25c.....	2 00	
Feb. 1-28...	1 do St. Catharines do.....	1 20	
	15 do Welland do at 45c.....	6 75	
	8 do Air Line do at 25c.....	2 00	
Mar. 1-31...	18 do Welland do at 45c.....	8 10	
	6 do Air Line do at 25c.....	1 50	29 95
do 1-31..	G. N. W. Telegraph Co., St. Catharines—Telegrams for month.....		14 12
do 1-31..	C. P. R. Telegraph Co., St. Catharines—Telegrams for month.....		1 31
do 1-31..	B. C. Fairfield, St. Catharines—Postage stamps.....		13 68
do 31...	To L. G. Carter, P. M.—Postage stamps for 3 months.....	3 03	
	Post Office box for year 1887.....	2 00	5 03
do 10...	The Globe Printing Co.—Advertising opening canal.....		9 00
do 22...	E. F. Dwyre, Port Dalhousie—Telegrams.....	0 38	
	Express charges, air pump to Montreal.....	7 40	7 78
do 31...	Bell Telephone Co., St. Catharines—Telephone messages for 3 months ending 31st March, 1887.....		2 20
	Wm. N. Garden, Welland—9 galls. coal oil, at 30c.....	2 70	
Feb. 1...	March 31...	1 box matches, 15c.; 3 chimneys, 30c.; wick, 5c.....	0 50
do 30...	do 31...	Wm. Pike, Thorold, 2,500 lbs. stove coal, at \$7.50 per ton..	3 20
do 31...	John Smith, Port Dalhousie, rent of ferry waiting room from 24th March, 1887, 12 months, at \$2.....		8 12
	William Ellis, Supt., St. Catharines—Quarterly allowance for fare and expenses, &c.....	75 00	24 00
do 31...	Expenses to Ottawa and back to confer with Chief Engineer and Deputy Minister about annual estimates, &c. (5 days away).....	32 35	107 35
do 19...	R. D. Dunn, P.M., St. Catharines—Horse and buggy, $\frac{1}{2}$ day, paying men.....	1 50	
do 21...	do do 1 do.....	2 50	
	Hotel bill, assistant, and horse feed.....	1 25	
do 22...	Railway and hack fare, Welland and return.....	1 60	
do 23...	do do Port Colborne to Dunnville.....	1 50	
do 24...	do do Dunnville to St. Catharines...	1 50	
do 19-24...	3 days' board and lodgings for self away from home paying February pay lists, at \$3.....	9 00	18 85



ACCOUNTS chargeable to Welland Canal, &c.—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
March 31...	J. G. Demare, Overseer, Division 1, Port Dalhousie, allowance for extra services regulating the water throughout the northern division of new canal to suit contractors' requirements during days, nights and Sundays from close of navigation, December, 1886, to opening again, May, 1887. ....		100 00
do 31...	John Cook, Port Colborne, services during season of navigation (1886) furnishing monthly statements of lighterages, &c., Port Colborne.....		20 00
			507 59

PAY-LIST in duplicate of persons employed on the Old Welland Canal and Feeder during the month of March, 1887, to Pay Permanent Establishment and Account, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	
Overseer.....	Mar., 1887	John B. Smyth.....	1 month...	100 00	100 00	6 00
Regulating water, Lock 2, 3	do ...	Walter Weaver.....	1 do ...	38 00	38 00	1 42
do do 3, 5	do ...	James Boyle.....	1 do ...	38 00	38 00	
do do 3, 5	do ...	Jas. Livingston.....	1 do ...	38 00	38 00	
do do 5, 11	do ...	Robert Boyle.....	1 do ...	38 00	38 00	
do do 5, 11	do ...	Jas. Cogan.....	1 do ...	38 00	38 00	
do do 11, 16	do ...	B. Clarke.....	1 do ...	38 00	38 00	
do do 11, 16	do ...	Michael Nestor.....	1 do ...	38 00	38 00	
do do 16, 20	do ...	E. McLaughlin.....	1 do ...	38 00	38 00	
do do 16, 20	do ...	Robert Bradley.....	1 do ...	38 00	38 00	
do do 20 to						
Guard Lock.....	do ...	John McNamara...	1 do ...	38 00	38 00	
Regulating water, Lock 20 to Guard Lock.....	do ...	D. Ryckman.....	1 do ...	38 00	38 00	
Regulating water, Lock 20 to Guard Lock.....	do ...	John Neil.....	1 do ...	38 00	38 00	
Regulating water, Allandburgh Lock.....	do ...	Wm. Higgins.....	1 do ...	38 00	38 00	over 35 yrs
Regulating water, Allandburgh Lock.....	do ...	A. H. Upper.....	1 do ...	38 00	38 00	
Regulating water, Allandburgh Lock.....	do ...	Lewis Mosier.....	1 do ...	38 00	38 00	
In charge waste weirs.....	do ...	John Fluellyn.....	1 do ...	38 00	38 00	
do do .....	do ...	Richard Higgins.....	1 do ...	38 00	38 00	
do do .....	do ...	Aaron Higgins.....	1 do ...	38 00	38 00	
In charge water banks, 4 Mile Level.....	do ...	John Gearin.....	1 do ...	38 00	38 00	1 42
<i>Feeder Division.</i>						
Overseer.....	do ...	John E. Scott.....	1 do ...	800 00	66 66	4 00
Regulating water, Junction Lock.....	do ...	Geo. Hannah.....	1 do ...	38 00	38 00	
Regulating water, Dunnville.....	do ...	Chas. Trush.....	1 do ...	38 00	38 00	over 35 yrs
					679 66	12 84

## ACCOUNTS chargeable to Old Welland Canal and Feeder, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Mar. 31...	To John B. Smyth, overseer, Merritton— Horse and waggon in connection with duties of overseer for 3 months ending March 31, 1887, at \$150 per annum 3 months' rent of house, \$8.....	37 50 24 00	61 50
Jan. 1-31...	John E. Scott, overseer, Dunnville— Horse and waggon, Port Maitland, 3 days, at \$1.50..... do Marshville, 1 day, at \$1.50..... do Stromness, 2 days, at \$1.50..... do Junction, 1 day, at \$2.....	4 50 1 50 3 00 2 00	
Feb. 1-28...	do Marshville, 3 days, at \$1.50..... do Port Maitland, 3 days, at \$1.50..... do Junction, 1 day, at \$2.....	4 50 4 50 2 00	
Mar. 1-31...	do Marshville, 4 days, at \$1.50..... do Port Maitland, 4 days, at \$1.50..... do Junction, 1 day, at \$2.....	6 00 6 00 2 00	36 00
do 28...	F. R. Lalor, Dunnville—45 gals. Am. coal oil, at 24c.....		10 80
Feb. 1-28...	Dunnville Electric Light Co., Dunnville— Electric light for February, Guard lock and bridge (2), 56 lights, at 16½c.....	9 33	
Mar. 1-31...	Electric light for March, Guard lock and bridge (2), 62 lights, at 16½c.....	10 33	19 66
do 8...	Rich. Leeson, Merritton— 1 ton No. 4 coal..... Delivering same to Allanburgh lock..... ½ cord wood, lock 17.....	6 50 1 00 2 75	10 25
			138 21

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of April, 1887, to pay permanent establishment, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Superintendent.....	April, 1887	William Ellis.....	1 month...	2,900 00	241 67
Paymaster.....	do	Richard D. Dunn.....	1 do	1,400 00	116 67
Accountant.....	do	Jas. E. Lawrence.....	1 do	1,000 00	83 33
Harbor master, Port Dalhousie....	do	Wm. Cook.....	1 do	750 00	62 50
do Port Colborne.....	do	C. H. Carter.....	1 do	750 00	62 50
Overseer, Division No. 1.....	do	J. G. Demare.....	1 do	100 00	100 00
do do No. 2.....	do	Jas. Dell.....	1 do	75 00	75 00
do do No. 3.....	do	A. Hamilton.....	1 do	60 00	60 00
do do No. 4.....	do	T. R. Secord.....	1 do	65 00	65 00
Storekeeper, &c.....	do	W. W. Wait.....	1 do	65 00	65 00
Messenger, &c.....	do	Thos. J. Hartley.....	30 days...	1 25	37 50
In charge of steel and iron bridges, also steam pump, &c...	do	W. Chatfield.....	1 month...	75 00	75 00
<i>Division No. 1.</i>					
Port Dalhousie Ferry.....	do	Frank Smith.....	26 days...	1 40	36 40
Master, Lock 1.....	do	J. M. Woodall.....	1 month...	38 00	} 40 00
Assistant.....	do	George Howe.....	do	42 00	
do	do	John Paxton.....	do	45 00	22 50
do	do	Thos. Williams.....	do	45 00	22 50
Master, Bridge 1.....	do	Frank Darby.....	do	45 00	22 50
Assistant.....	do	Philip Ohnith.....	do	45 00	22 50
Master, Lock 2.....	do	Alph. Kelly.....	do	47 00	22 50
Assistant.....	do	Geo. Bowman.....	do	45 00	22 50
do	do	Bur. Merritt.....	do	45 00	22 50
do	do	Richard Hutton.....	do	45 00	22 50
Master, Lock 3.....	do	Isaac Johnston.....	do	47 00	22 50
Assistant.....	do	James Keyes.....	do	45 00	22 50
do	do	James Grogan.....	do	45 00	22 50
do	do	Con. Gorman.....	do	45 00	22 50
Master, Bridge 2.....	do	John Flynn.....	do	45 00	22 50
Assistant.....	do	H. Alexander.....	do	45 00	22 50
Master, Lock 4.....	do	Jos. Franklin.....	do	47 00	23 50
Assistant.....	do	Samuel Hopkins.....	do	45 00	22 50
do	do	Wm. Altoft.....	do	45 00	22 50
do	do	Jon. Woodall.....	do	45 00	22 50
Master, Lock 5.....	do	Thomas Scott.....	do	47 00	23 50
Assistant.....	do	Thomas Jones.....	do	45 00	22 50
do	do	John Wilde.....	do	45 00	22 50
Master, Bridge 3.....	do	Geo. H. Brownlee.....	do	45 00	22 50
Assistant.....	do	M. Morarity.....	do	45 00	22 50
Master, Lock 6.....	do	Peter Paxton.....	do	47 00	23 50
Assistant.....	do	John Daley.....	do	45 00	22 50
do	do	Chas. Newbold.....	do	45 00	22 50
do	do	Chas. P. Sabine.....	do	45 00	22 50
Master, Bridge 5.....	do	William Elliott.....	do	45 00	22 50
Assistant.....	do	George Spooner.....	do	45 00	22 50
Master, Lock 7.....	April, 1887	C. B. Hare.....	do	47 00	23 50
Assistant.....	do	M. Sullivan.....	do	45 00	22 50
do	do	William Boyle.....	do	45 00	22 50
do	do	Richard Freeman.....	do	45 00	22 50
Master, Bridge 6.....	do	James W. Grant.....	do	45 00	22 50
Assistant.....	do	Alex. Stewart.....	do	45 00	22 50
Master, Lock 8.....	do	Nicholas Hayden.....	do	47 00	23 50
Assistant.....	do	William Reid.....	do	45 00	22 50
do	do	Robert Secord.....	do	45 00	22 50
do	do	M. McCormack.....	do	45 00	22 50
Master, Lock 9.....	do	R. H. Watson.....	do	47 00	23 50
Assistant.....	do	Alex. Soper.....	do	45 00	22 50
do	do	Jas. C. Longley.....	do	45 00	22 50



PAY-LIST in duplicate of Persons employed on the Welland Canal—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 1—Con.</i>				\$ cts.	\$ cts.
Assistant.....	April, 1887	Alex. Bradt.....	1 month...	45 00	22 50
Master, Bridge 7.....	do	James Whitten.....	do	45 00	22 50
Master, Lock 10.....	do	James Bradley.....	do	47 00	23 50
Assistant.....	do	James Mulvey.....	do	45 00	22 50
do	do	Henry Hare.....	do	45 00	22 50
do	do	Thomas Nelson.....	do	45 00	22 50
Master, Bridge 8.....	do	Arthur Cairn.....	do	45 00	22 50
Assistant.....	do	John McGeachie.....	do	45 00	22 50
do	do	James Reynolds.....	do	47 00	23 50
do	do	Alex. Wilson.....	do	45 00	22 50
Master, Lock 12.....	do	W P. Burleigh.....	do	45 00	22 50
Assistant.....	do	James Webster.....	do	45 00	22 50
do	do	Wm. Strong.....	do	47 00	23 50
do	do	Edward Bradley.....	do	45 00	22 50
Master, Lock 13.....	do	Frank Mugham.....	do	45 00	22 50
Assistant.....	do	James McBride.....	do	45 00	22 50
do	do	Thos. Keating.....	do	47 00	23 50
do	do	Joseph Turner.....	do	45 00	22 50
do	do	James A Bradley.....	do	45 00	22 50
do	do	Geo. Millward.....	do	45 00	22 50
<i>Division No. 2.</i>					
Master, Bridge 9.....	April, 1887	John Black.....	1 month...	45 00	22 50
Assistant.....	do	John Clarke.....	do	45 00	22 50
Master, Lock 14.....	do	Cornelius Nestor.....	do	47 00	23 50
Assistant.....	do	Thomas Flynn.....	do	45 00	22 50
do	do	James Winton.....	do	45 00	22 50
do	do	John Strong.....	do	45 00	22 50
Master, Lock 15.....	do	Thomas Aikens.....	do	47 00	23 50
Assistant.....	do	James McAuley.....	do	45 00	22 50
do	do	W. J. Wilson.....	do	45 00	22 50
do	do	Robt. Boyle.....	do	45 00	22 50
Master, Lock 16.....	do	Thomas Burley.....	do	47 00	23 50
Assistant.....	do	Sam. Bradley.....	do	45 00	22 50
do	do	John Holland.....	do	45 00	22 50
do	do	Austin Moran.....	do	45 00	22 50
Master, Lock 17.....	do	Michael Cody.....	do	47 00	23 50
Assistant.....	do	F. Shuman.....	do	45 00	22 50
do	do	Michael Glynn.....	do	45 00	22 50
do	do	Michael Dooher.....	do	45 00	22 50
Master, Lock 18.....	do	James Pearson.....	do	47 00	23 50
Assistant.....	do	George Newton.....	do	45 00	22 50
do	do	Thomas Hanna.....	do	45 00	22 50
do	do	Joseph Cook.....	do	45 00	22 50
Master, Lock 19.....	do				
Assistant.....	do	Fred. Johnston.....	1 do	45 00	22 50
do	do	Fred. Hoschke.....	do	45 00	22 50
do	do				
Master, Lock 20.....	do	Jacob Renter.....	do	47 00	23 50
Assistant.....	do	Isaac McMann.....	do	45 00	22 50
do	do	John Collins.....	do	45 00	22 50
do	do	Thomas Freel.....	do	45 00	22 50
Master, Lock 21.....	do	F. C. Berriman.....	do	45 00	22 50
Assistant.....	do	John Colu.....	do	45 00	22 50
do	do	James Ellis.....	do	45 00	22 50
do	do	Adelbert Clark.....	do	45 00	22 50
Master, Lock 22.....	do	Wm. Hanna.....	do	47 00	23 50
Assistant.....	do	P. McNamara.....	do	45 00	22 50
do	do	Wm. Boyle.....	do	45 00	22 50
do	do	Henry Phillips.....	do	45 00	22 50
Master, Lock 23.....	do	T. Bopewell.....	do	47 00	23 50
Assistant.....	do	Jas. Smerdon.....	do	45 00	22 50
do	do	John Corbett.....	do	45 00	22 50
do	do	T. Commarford.....	do	45 00	22 50

PAY-LIST in duplicate of Persons employed on the Old Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
Division No. 2—Con.				\$ cts.	\$ cts.
Master, Lock 24.....	April, 1887	R. Campbell.....	$\frac{1}{2}$ month ..	47 00	23 50
Assistant.....	do ..	M. Henderson.....	$\frac{1}{2}$ do ..	45 00	22 50
do .....	do ..	T. Bradley.....	do ..	45 00	45 00
do .....	do ..	Henry Kern.....	do ..	45 00	45 00
Master, Bridge 10.....	do ..	Wm. Flemming.....	do ..	45 00	22 50
Assistant.....	do ..	F. Galbraith.....	do ..	45 00	22 50
Master, Lock 25.....	do ..	M. McCarthy.....	do ..	47 00	23 50
Assistant.....	do ..	Sam. Campbell.....	do ..	45 00	22 50
do .....	do ..	Robt. Wright.....	do ..	45 00	22 50
Master, Bridge 12.....	do ..	Robert Camp .....	$\frac{1}{2}$ do ..	45 00	22 50
Assistant.....	do ..	Chas. H. Collier.....	do ..	42 00	8 40
Master, Guard Lock.....	do ..	Samuel Fraser.....	do ..	45 00	45 00
Assistant.....	do ..	Fred. Lavy.....	do ..	45 00	22 50
do .....	do ..	James Cook.....	do ..	45 00	22 50
do .....	do ..	Rich. Higgins.....	do ..	45 00	22 50
Master, Bridge 13.....	do ..	William Upper.....	1 do ..	45 00	45 00
Assistant.....	do ..				
Division No 4.					
Master, Bridge 14.....	do ..	Daniel O'Leary.....	$\frac{1}{2}$ do ..	45 00	22 50
Assistant.....	do ..	George A. Upper.....	do ..	40 00	20 00
Master, Bridge 15.....	do ..	Bart. O'Leary.....	do ..	45 00	22 50
Assistant.....	do ..	Geo. Thompson.....	do ..	45 00	22 50
Port Robinson Ferry.....	do ..	R. Stevenson.....	do ..	30 00	15 00
do Lock.....	do ..	James Coppin.....	do ..	47 00	23 50
Assistant.....	do ..	James Walsh.....	do ..	45 00	22 50
Master, Bridge 16.....	do ..	James Edmonds.....	do ..	45 00	22 50
Assistant.....	do ..	Geo. P. Misner .....	do ..	45 00	22 50
Welland Lock.....	do ..	William Welson.....	do ..	45 00	22 50
Master, Bridge 17.....	do ..	James Foster.....	do ..	45 00	22 50
Assistant.....	do ..	Luke J. Brennan.....	do ..	45 00	22 50
Master, Bridge 19.....	do ..	Chas. Hanna.....	do ..	45 00	22 50
Assistant.....	do ..	Alex. Hanna.....	do ..	45 00	22 50
Humberston Ferry.....	do ..	Mich. Towynor.....	1 do ..	30 00	30 00
Master, Bridge 21.....	do ..	Emil Boneberg.....	do ..	45 00	22 50
Assistant.....	do ..	Issac Shisler.....	do ..	45 00	22 50
Port Colborne Lock.....	do ..	John Henshaw.....	{ do ..	32 00	} 40 00
Assistant, Bridge.....	do ..	John Cook.....	do ..	42 00	
do do .....	do ..	John Stevens ..	do ..	42 00	21 00
do do .....	do ..	Jas. Wenlap.....	do ..	42 00	21 00
do do .....	do ..	William Aikins.....	do ..	42 00	21 00
Port Colborne Ferry.....	do ..	John Bradley.....	1 do ..	42 00	42 00
Watching old Aqueduct, Welland,	night and day.....	Jos. McMurray.....	{ 15 days.....	1 25	} 41 25
do .....		James Nixon.....	{ 15 do ..	1 50	
do .....		Robert Simpson.....	{ 15 do ..	1 25	} 41 25
do .....		William Nixon.....	{ 15 do ..	1 50	
do .....			{ 15 do ..	1 25	41 25
do .....			{ 15 do ..	1 50	
do .....			{ 15 do ..	1 50	
					4,608 97



## ACCOUNTS Chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
April 1-30...	To G.N.W. Telegraph Co., St. Catharines—Telegrams for month.....		45 98
do 1-30...	C.P.R. Telegraph Co., St. Catharines—Telegrams for month.....		2 83
do 1-30...	G.N.W. Telegraph Co., Allanburgh—Telegrams for month.....		1 28
do 1-30...	G.N.W. Telegraph Co., Pt. Robinson—Telegrams for month.....		1 38
do 30...	Bell Telephone Co., Pt. Colborne—		
	Conversation from February to April 30, 1887 .....	2 30	
	Rent of instrument 6 months .....	12 50	
			14 80
do 1-30...	B. C. Fairfield, St. Catharines—Postage stamps .....		7 80
do 1-30...	John Junken & Co., St. Catharines—		
	7 gals. coal oil, \$1.75; 1 feather duster, 85c .....	2 60	
	3 doz. brooms, \$8.25; 1 case matches, \$4.75.....	13 00	
	2 grs. lamp wick, \$1.75; 4 doz. large lamp chimneys, \$6.....	7 75	
	4 doz. md. lamp chimneys, at \$1.20 .....	4 80	
	4 doz. large burners, \$10; 4 doz. med. burners, \$8 .....	18 00	
	2 doz. lanhour burners, at \$2.25.....	4 50	
			50 65
do 1-30...	Wm. N. Garden, Welland—		
	6 gals. coal oil, at 30c.; 6 rolls batton, 48c.....	2 28	
	Lampwick.....	5	
			2 33
do 1-30...	John Mathews, Pt. Colborne—		
	1 cord wood, at \$5; 2 brooms, 70c.; 3 bars soap, 75c.....	6 45	
	14 gals. coal oil at 30c.; 8 boxes matches at 15c.....	5 40	
	8 burners at 20c.; 2½ doz. chimneys, \$2.50.....	4 10	
	7 yds. cotton, 56c.; lamp wick, 19c.....	75	
			16 70
do 30...	Wm. T. Sawle, Welland—Welland Telegraph—1 year's subscription .....		1 00
do 30...	The Mail Printing Co., Toronto—Advertisement, "opening notice" (canals).....		14 70
do 30...	Gazette Printing Co., Montreal—Adv. opening canals.....		5 00
do 30...	A. Thompson, Welland—		
	1 week's board and lodging for C. P. Carter, in charge of old aqueduct, Welland.....		4 00
do 1-30...	John Sutter, St. Catharines—5,200 lbs. stove coal, at \$6.75 .....		16 25
April 21...	To George Gibson, P.L.S., St. Catharines—		
	1 day Registry Office, Welland, re Brown ditch.....	5 00	
	Expenses, railway and meals.....	1 00	
do 27...	Self and assistant surveying Brown's ditch.....	6 50	
	Horse and buggy.....	1 00	
	Expenses, self and assistant, railway and meals.....	2 00	
do 30...	Plans and description, Brown's ditch.....	5 00	
			20 50
	Registry Office, Welland—		
do 21...	{ Schedules, lot 29, con. 7 } Crown land.....	3 00	
	do lot 30, con. 7 }		
	Extract from deed, Thorburn to Queen.....	0 55	
			3 55
do 30...	Mrs. Tuckey, Welland—Repairing two clocks .....		1 50
do 29...	Globe Printing Co., Toronto—Advertising opening canals .....		13 12
do 29...	Daily News, Kingston—Advertising opening canals.....		5 00
do 28...	M. Y. Keating, St. Catharines—1 year's subscription Daily Courier, Buffalo.....		8 00
do 30...	Elbert Place, Agent, St. Catharines—1 map Dominion of Canada.....		8 00
	R. D. Dunn, Paymaster, St. Catharines—		
do 30...	Telegrams paid Bank of Commerce re credits, January, 50 cts.; February, 25 cts.; March, 50 cts.; April, 50 cts.....	1 75	
do 26...	Paid express charges on 1 case stationery from Ottawa.....	9 50	
do 30...	do Plain Dealer, Cleveland, O., advertising opening canals.....	12 00	



ACCOUNTS chargeable to Welland Canal, &c — *Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
April 30...	To the Chicago <i>Inter-Ocean</i> , advertising opening canal....	8 00	
do 18...	do Post Office orders on above advertising accounts....	0 30	
do 19...	Conveyance along canal, paying $\frac{1}{2}$ day .....	1 50	
	do do 1 do .....	2 50	
do 20...	Expenses, assistant and horse feed.....	1 00	
do 21-22...	Railway fares and hack hire, Welland and return.....	1 55	
	do do Port Colborne and Dunnville and return.....	3 00	
do 18-22...	3 days' board and lodging for self away from home, paying men, at \$3.....	9 00	18 55
do 1-30...	W. W. Wait, St. Catharines—Use of horse and waggon delivering stores and oils along canal.....		20 00
			314 40

PAY-LIST in duplicate of persons employed on the Old Welland and Feeder Canal during the month of April, 1887, to pay permanent establishment and accounts chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1887.			\$ cts.	\$ cts.
Overseer .....	April .....	John B. Smyth .....	1 month...	100 00	100 00
Master, Lock 1 and Bridge .....	do .....	Sam. Duffin .....	do .....	42 00	21 00
Assistant .....	do .....	R. Edgraft .....	do .....	42 00	21 00
do .....	do .....	Wm. L. Smith .....	do .....	42 00	21 00
do .....	do .....	John House .....	do .....	42 00	21 00
Master, Lock 2 and Bridge .....	do .....	Walter Weaver .....	do .....	38 00	} 40 00
Assistant .....	do .....	T. Johnson .....	do .....	42 00	
do .....	do .....	W. H. Charles .....	do .....	42 00	21 00
do .....	do .....	John Sullivan .....	do .....	42 00	21 00
St. Paul Street Bridge .....	do .....	Wm. McClorey .....	do .....	38 00	19 00
Assistant .....	do .....	Tim. Sullivan .....	do .....	38 00	19 00
Master, Lock 3 .....	do .....	Alex. Walker .....	1 do .....	38 00	38 00
Assistant .....	do .....	Fredk. Sherer .....	do .....	38 00	19 00
Master, Lock 4 and Bridge .....	do .....	James Livingston .....	do .....	42 00	21 00
Assistant .....	do .....	James Boyle .....	do .....	42 00	21 00
Master, Locks 5, 6, 7 and Bridge ..	do .....	Robert Boyle .....	do .....	42 00	21 00
Assistant .....	do .....	Michael White .....	do .....	42 00	21 00
Master, Locks 8, 9, 10 and 11 .....	do .....	Barney Clarke .....	do .....	38 00	19 00
Assistant .....	do .....	C. W. Bradley .....	do .....	38 00	19 00
Master, Locks 12, 13, 14, 15 and Bridge ..	do .....	James Cogan .....	1 do .....	38 00	19 00
Assistant .....	do .....	Martin Nestor .....	do .....	38 00	19 00
Master, Locks 16, 17 and 18 .....	do .....	Barnett Darby .....	1 do .....	38 00	38 00
Assistant .....	do .....	Robert Gibson .....	1 do .....	38 00	38 00
Master, Locks 19, 20 and 21 .....	do .....	Ed. McLaughlin .....	1 do .....	38 00	19 00
Assistant .....	do .....	Robert Bradley .....	do .....	38 00	19 00
Master, Keefer Bridge .....	do .....	John McNamara .....	do .....	38 00	19 00
Assistant .....	do .....	A. W. Bradley .....	1 do .....	38 00	38 00
Master, Locks 23, 24 and Bridge ..	do .....	John Neil .....	do .....	38 00	} 40 00
Assistant .....	do .....	D Ryckman .....	do .....	42 00	
Master, Lock 25 and Guard Lock ..	do .....	John Fluellyn .....	1 do .....	38 00	38 00
Assistant .....	do .....	Rufus Swazzie .....	do .....	38 00	19 00
Marlatt's Bridge .....	do .....	Nelson Higgins .....	do .....	38 00	19 00
Allanburg do .....	do .....	A. H. Upper .....	do .....	38 00	19 00
Allanburg Lock .....	do .....	Wm. Higgins .....	1 do .....	38 00	38 00
Assistant .....	do .....	Lewis Hosier .....	1 do .....	38 00	38 00
Allanburg Guard Lock .....	do .....	Aaron Higgins .....	1 do .....	38 00	38 00
Foreman on Banks .....	do .....	John Gearrin .....	1 do .....	38 00	38 00
<i>Feeder Division.</i>					
Overseer .....	do .....	John E. Scott .....	1 do .....	800 00	66 67
Junction Lock .....	do .....	George Hannah .....	1 do .....	38 00	38 00
Feeder Float Bridge .....	do .....	John Henderson .....	do .....	10 00	5 00
Stromness Bridge .....	do .....	George Harris .....	do .....	38 00	19 00
Port Maitland Lock .....	do .....	Michael Corcoran .....	do .....	38 00	19 00
Assistant .....	do .....	Wm. Brenen .....	do .....	38 00	19 00
Regulating water at Dunnville ..	do .....	Chas. Thrush .....	1 do .....	38 00	38 00
					1,223 67

ACCOUNTS chargeable to Old Welland Canal, and Feeder Staff and Working Expenses.

Date.	Nature of Work.	Amount.
1887.		\$ cts.
April 30 .....	Dunnville Electric Lighting Co., Dunnville.—Electric light at Swing Bridge and Guard Lock, 60 ft., at 16 $\frac{1}{2}$ c.....	10 00

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of May, 1887, to pay permanent establishment and accounts chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Superintendent.....	May, 1887.	Wm. Ellis.....	1 month..	2,900 00	241 67
Paymaster.....	do	R. D. Dunn.....	1 do	1,400 00	116 67
Accountant.....	do	J. E. Lawrence.....	1 do	1,000 00	83 33
Harbor-Masters—					
Port Dalhousie.....	do	Wm. Cook.....	1 do	750 00	62 50
Port Colborne.....	do	C. H. Carter.....	1 do	750 00	62 50
Overseers—					
Division No. 1.....	do	J. G. Demare.....	1 do	100 00	100 00
do 2.....	do	Jas. Dell.....	1 do	75 00	75 00
do 3.....	do	A. Hamilton.....	1 do	60 00	60 00
do 4.....	do	T. R. Secord.....	1 do	65 00	65 00
Storekeeper, &c.....	do	W. W. Wait.....	1 do	65 00	65 00
Messenger, &c.....	do	T. J. Hartley.....	31 days	1 25	38 75
In charge of steel and iron bridges; also steam pump, &c..	do	W. Chatfield.....	1 month..	75 00	75 00
<i>Division No. 1.</i>					
Port Dalhousie Ferry.....	do	Frank Smith.....	26 days....	1 40	36 40
Master, Lock 1.....	do	J. M. Woodall.....	1 month..	42 00	42 00
Assistant.....	do	George Howe.....	1 do	45 00	45 00
do	do	John Paxton.....	1 do	45 00	45 00
do	do	Thos. William.....	1 do	45 00	45 00
Master, Bridge 1.....	do	Phillip Onnith.....	1 do	45 00	45 00
Assistant.....	do	Frank Darby.....	1 do	45 00	45 00
Master, Lock 2.....	do	Alph. Kelly.....	1 do	47 00	47 00
Assistant.....	do	Geo. Bowman.....	1 do	45 00	45 00
do	do	B. Merritt.....	1 do	45 00	45 00
do	do	Rick. Hutton.....	1 do	45 00	45 00
Master, Lock 3.....	do	Issac Johnston.....	1 do	47 00	47 00
Assistant.....	do	James Keyes.....	1 do	45 00	45 00
do	do	Con. Gorman.....	1 do	45 00	45 00
do	do	James Grogan.....	1 do	45 00	45 00
Master, Bridge 2.....	do	John Flynn.....	1 do	45 00	45 00
Assistant.....	do	H. Alexander.....	1 do	45 00	45 00
Master, Lock 4.....	do	Jos. Franklin.....	1 do	47 00	47 00
Assistant.....	do	Sam. Hopkins.....	1 do	45 00	45 00
do	do	Wm. Altoft.....	1 do	45 00	45 00
do	do	F. Woodall.....	1 do	45 00	45 00
Master, Lock 5.....	do	Thomas Scott.....	1 do	47 00	47 00
Assistant.....	do	John Pennington.....	1 do	45 00	45 00
do	do	Thomas Jones.....	1 do	45 00	45 00
do	do	John Wilde.....	1 do	45 00	45 00
Master, Bridge 3.....	do	G. A. Brownen.....	1 do	45 00	45 00
Assistant.....	do	M. Morarity.....	1 do	45 00	45 00
Master, Lock 6.....	do	Peter Paxton.....	1 do	47 00	47 00
Assistant.....	do	John Daley.....	1 do	45 00	45 00
do	do	Chas. Newbold.....	1 do	45 00	45 00
do	do	W. Bowman.....	1 do	45 00	45 00
Master, Bridge 5.....	do	Wm. Elliott.....	1 do	45 00	45 00
Assistant.....	do	Geo. Spooner.....	1 do	45 00	45 00
Master, Lock 7.....	do	C. B. Hare.....	1 do	47 00	47 00
Assistant.....	do	M. Sullivan.....	1 do	45 00	45 00
do	do	Wm. Boyle.....	1 do	45 00	45 00
do	do	R. Freeman.....	1 do	45 00	45 00
Master, Bridge 6.....	do	Jas. W. Grant.....	1 do	45 00	45 00
Assistant.....	do	Alex. Stewart.....	1 do	45 00	45 00
Master, Lock 8.....	do	Nich. Hayden.....	1 do	47 00	47 00
Assistant.....	do	Wm. Reid.....	1 do	45 00	45 00
do	do	Robt. Secord.....	1 do	45 00	45 00
do	do	M. McCormick.....	1 do	45 00	45 00
Master, Lock 9.....	do	R. H. Watson.....	1 do	47 00	47 00



PAY LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
<i>Division No. 1.—Con.</i>					
Assistant.....	May, 1887.	Alex. Soper.....	1 month..	45 00	45 00
do .....	do .....	Jos. C. Longley .....	1 do .....	45 00	45 00
do .....	do .....	Alex. Bradt.....	1 do .....	45 00	45 00
Master, Bridge 7.....	do .....	John Cushman .....	1 do .....	45 00	45 00
Assistant.....	do .....	James Whitten.....	1 do .....	45 00	45 00
Master, Lock 10.....	do .....	Jas. Bradley.....	1 do .....	47 00	47 00
Assistant.....	do .....	Jas. Mulvey.....	1 do .....	45 00	45 00
do .....	do .....	Henry Hare.....	1 do .....	45 00	45 00
do .....	do .....	Thos. Nelson.....	1 do .....	45 00	45 00
Master, Bridge 8.....	do .....	Arthur Cain.....	1 do .....	45 00	45 00
Assistant.....	do .....	John McGeachie.....	1 do .....	45 00	45 00
Master, Lock 11.....	do .....	Jas. Reynolds.....	1 do .....	47 00	47 00
Assistant.....	do .....	Alex. Wilson.....	1 do .....	42 00	45 00
do .....	do .....	W. P. Burleigh.....	1 do .....	45 00	45 00
do .....	do .....	James Webster.....	1 do .....	45 00	45 00
Master, Lock 12.....	do .....	Wm. Strong.....	1 do .....	47 00	47 00
Assistant.....	do .....	E. Bradley.....	1 do .....	45 00	45 00
do .....	do .....	F. Mughan.....	1 do .....	45 00	45 00
do .....	do .....	Jas. McBride.....	1 do .....	45 00	45 00
Master, Lock 13.....	do .....	Thos. Keating.....	1 do .....	47 00	47 00
Assistant.....	do .....	Joseph Turner.....	1 do .....	45 00	45 00
do .....	do .....	Peter Secord.....	1 do .....	45 00	45 00
do .....	do .....	Geo. Milliward.....	1 do .....	45 00	45 00
<i>Division No. 2.</i>					
Master, Bridge 9.....	do .....	John Clarke.....	1 do .....	45 00	45 00
Assistant.....	do .....	John Black.....	1 do .....	45 00	45 00
Master, Lock 14.....	do .....	Con. Nestor.....	1 do .....	47 00	47 00
Assistant.....	do .....	Abe. Brennan.....	1 do .....	45 00	45 00
do .....	do .....	Thomas Flynn.....	1 do .....	45 00	45 00
do .....	do .....	John Strong.....	1 do .....	45 00	45 00
Master, Lock 15.....	do .....	Thos. Aikens.....	1 do .....	47 00	47 00
Assistant.....	do .....	Jas. McAuley.....	1 do .....	45 00	45 00
do .....	do .....	W. J. Wilson.....	1 do .....	45 00	45 00
do .....	do .....	Robt. Boyle.....	1 do .....	45 00	45 00
Master, Lock 16.....	do .....	Thos. Burleigh.....	1 do .....	47 00	47 00
Assistant.....	do .....	Samuel Bradley.....	1 do .....	45 00	45 00
do .....	do .....	Austin Moran.....	1 do .....	45 00	45 00
do .....	do .....	John Holland.....	1 do .....	45 00	45 00
Master, Lock 17.....	do .....	Michael Coody.....	1 do .....	47 00	47 00
Assistant.....	do .....	F. Shuman.....	1 do .....	45 00	45 00
do .....	do .....	Michael Glynn.....	1 do .....	45 00	45 00
do .....	do .....	W. Gulbraith.....	1 do .....	45 00	45 00
Master, Lock 18.....	do .....	Jas. H. Pearson.....	1 do .....	47 00	47 00
Assistant.....	do .....	Geo. Newton.....	1 do .....	45 00	45 00
do .....	do .....	Thos. Hanna.....	1 do .....	45 00	45 00
do .....	do .....	Jas. Cook.....	1 do .....	45 00	45 00
Master, Lock 19.....	do .....	R. Grisdale.....	1 do .....	47 00	47 00
Assistant.....	do .....	F. Johnson.....	1 do .....	45 00	45 00
do .....	do .....	R. Grenville.....	1 do .....	45 00	45 00
do .....	do .....	F. Hoschke.....	1 do .....	45 00	45 00
Master, Lock 20.....	do .....	Jacob Reuter.....	1 do .....	47 00	47 00
Assistant.....	do .....	Isaac McMann.....	1 do .....	45 00	45 00
do .....	do .....	John Collins.....	1 do .....	45 00	45 00
do .....	do .....	Thomas Freel.....	1 do .....	45 00	45 00
Master, Lock 21.....	do .....	F. C. Berriman.....	1 do .....	47 00	47 00
Assistant.....	do .....	John Cole.....	1 do .....	45 00	45 00
do .....	do .....	James Ellis.....	1 do .....	45 00	45 00
do .....	do .....	Adelbert Clarke.....	1 do .....	45 00	45 00
Master, Lock 22.....	do .....	William Hannah.....	1 do .....	47 00	47 00
Assistant.....	do .....	W. Camp.....	1 do .....	45 00	45 00
do .....	do .....	Hy. Phillips.....	1 do .....	45 00	45 00
do .....	do .....	Wm. Boyle.....	1 do .....	45 00	45 00

PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Date.	Amount.
<i>Division No. 2.</i>					\$ cts.
Master, Lock 23.....	May, 1887.	T. Bonewell.....	1 month.	47 00	47 00
Assistant.....	do	Jas. Smerdon.....	1 do	45 00	45 00
do .....	do	T. Comnarford.....	1 do	45 00	45 00
do .....	do	John Corbett.....	1 do	45 00	45 00
Master, Lock 24.....	do	R. Campbell.....	1 do	47 00	47 00
Assistant.....	do	M. Henderson.....	1 do	45 00	45 00
do .....	do	T. Bradley.....	1 do	45 00	45 00
do .....	do	H. Kern.....	1 do	45 00	45 00
Master, Bridge 10.....	do	Wm. Fleming.....	1 do	45 00	45 00
Assistant.....	do	F. Galbraith.....	1 do	45 00	45 00
Master, Lock 25.....	do	M. McCarthy.....	1 do	47 00	47 00
Assistant.....	do	Geo. Detter.....	1 do	45 00	45 00
do .....	do	Saml. Campbell.....	1 do	45 00	45 00
do .....	do	Robert Wright.....	1 do	45 00	45 00
Master, Bridge 12 .....	do	Robert Camp.....	1 do	45 00	45 00
Assistant.....	do	Geo. A. Thomas.....	$\frac{1}{2}$ do	45 00	22 50
Master, Guard Lock.....	do	James Winton.....	1 do	47 00	47 00
Assistant.....	do	Samuel Fraser.....	1 do	45 00	45 00
do .....	do	Fred. Lay.....	1 do	45 00	45 00
do .....	do	James Cook.....	1 do	45 00	45 00
Master, Bridge 13.....	do	Richard Higgins.....	1 do	45 00	45 00
Assistant.....	do	William Upper.....	1 do	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14.....	May, 1887.	Daniel O'Leary.....	1 month.	45 00	45 00
Assistant.....	do	George A. Upper.....	1 do	40 00	40 00
Master, Bridge 15.....	do	Bart. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	George Thompson.....	1 do	45 00	45 00
Port Robinson Ferry .....	do	R. Stevenson.....	1 do	30 00	30 00
do Lock.....	do	James McCoppin.....	1 do	47 00	47 00
Assistant.....	do	James Walsh.....	1 do	45 00	45 00
Master, Bridge 16.....	do	James Edmonds.....	1 do	45 00	45 00
Assistant.....	do	Geo. P. Misner.....	1 do	45 00	45 00
<i>Division No. 4.</i>					
Welland Lock.....	May, 1887.	William Wilson.....	1 month.	45 00	45 00
Master, Bridge 17.....	do	James Foster.....	1 do	45 00	45 00
Assistant.....	do	Luke J. Brenen.....	1 do	45 00	45 00
Master, Bridge 19 .....	do	Chas. Hannah.....	1 do	45 00	45 00
Assistant.....	do	Alex. Hannah.....	1 do	45 00	45 00
Humberstone Ferry.....	do	Michael Traynor.....	1 do	30 00	30 00
Master, Bridge 21.....	do	Emil. Bonabery.....	1 do	45 00	45 00
Assistant.....	do	Isaac Shisler.....	1 do	45 00	45 00
Port Colborne Lock and Bridge..	do	John Henshaw.....	1 do	42 00	42 00
do do .....	do	John Cook.....	1 do	42 00	42 00
do do .....	do	John Stevens.....	1 do	42 00	42 00
do do .....	do	Wm. Aikens.....	1 do	42 00	42 00
do do .....	do	James Dunlop.....	1 do	42 00	42 00
do Ferry .....	do	John Bradley.....	1 do	42 00	42 00
Signalling and controlling safe passage of vessels through the Old Aqueduct at Welland, night and day.	do	James McMurray.....	31 days...	1 50	46 50
do do .....	do	Robt. Simpson.....	31 do	1 50	46 50
do do .....	do	James Nixon .....	31 do	1 50	46 50
do do .....	do	William Nixon .....	31 do	1 50	46 50
<i>Division No. 1.</i>					
Machinist keeping machinery connected with Lock Gates and Waste Weirs in proper order throughout Divisions 1 and 2, night and day.	May, 1887.	Samuel Houston.....	26 days...	2 00	52 00
do do .....	do	William Mossip.....	20 do	2 00	40 00



PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 2.</i>					
Machinist keeping machinery connected with Lock Gates and Waste Weirs in proper order throughout Divisions 1 and 2, night and day.	May, 1887.	John McMillan.....	31½ days...	\$ cts. 2 00	\$ cts. 63 00
do do ...	do ...	Thos. Ryan.....	32½ do ...	1 75	56 44
do do ...	do ...	J. H. Booth, horse and wagon.	26¾ do ...	1 50	40 13
Diver.....	do ...	Edward Smiley.....	30½ do ...	2 00	61 00
					8,258 89

## ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Name of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
May 1...	To G. N. W. Telegraph Co., St. Catharines—Telegrams for month.....		27 90
do 31...	Bell Telephone Co., Welland—Conversation and messages from April 1 to May 31, 1887.....		10 60
do 1-31...	B. C. Fairfield, St. Catharines—Postage stamps.....		9 30
April 14...	The Journal Printing Co., St. Catharines—		
	Advertising water drawn out.....	8 50	
May 2...	300 posters (notice to mariners).....	5 00	
do 1-31...	Advertising list of vessels passing through Canal 235.....	9 40	
			22 90
do 1-31...	William Chelew, St. Catharines—179 galls. coal oil at 26c.....		46 54
do 1-31...	Wm. N. Garden, Welland—		
	38 galls. American coal oil at 30c.....	11 40	
	4 boxes matches at 15c., 60; 6 brooms at 25c., \$1.50.....	2 10	
	1½ doz. chimneys \$1.50, 7 burners 33.....	1 83	
	3 galls. lard oil.....	3 00	
do 1-31...	John Mathews, Port Colborne—		18 33
	23 galls. American coal oil.....	6 90	
	3 boxes matches 45c., 1 broom 30c.....	75	
			7 65
do 1-31...	E. F. Dwyer, G. N. W. Telegraph Co., Port Dalhousie—		
	Telegrams for month.....	3 63	3 63
do 1-31...	To A. Thompson, Welland—4½ weeks board and lodgings for C. H. Carter in charge of Old Aqueduct at Welland, at \$4.00.....		17 71
do 1-31...	To W. W. Wait, St. Catharines—Use of horse and waggon delivering stores and coal oil along canal.....		20 00
	To R. D. Dunn, Paymaster, St. Catharines—		
do 18...	Horse and buggy, 1 day, paying men and account.....	2 50	
do 19...	do do do \$2.50; Expenses, assistant and horse, \$1.25.....	3 75	
do 20...	Railway fare and cab hire, Welland and return.....	1 65	
do 23-24...	do do Dunnville do.....	3 00	
do 30...	Fare and expenses, Toronto and return, paying accounts... 3 days' board and lodging during the month away from home, paying men and accounts, at \$3.00.....	3 80	
		9 00	
			23 70
April 15-30...	To Grand Trunk Railway Co., St. Catharines—		
	½ month, 1 man, railway bridge, St. Catharines, at \$45.00..	22 50	
	½ month each, 4 men, railway bridge, Thorold, at \$45.00...	45 00	
	1 do 8 do do St. Catharines and Thorold, at \$45.00.....	360 00	
			427 50
			625 76



**PAY-LIST** in duplicate of persons employed on the Old Welland Canal and Feeder during the month of May, 1887, to Permanent Establishment, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Overseer.....	May, 1887	John B. Smyth.....	1 month...	100 00	100 00
Master, lock 1 and bridge.....	do	Sam Duffin.....	do	42 00	42 00
Assistant.....	do	Robert Edgraff.....	do	42 00	42 00
do	do	Wm. L. Smith.....	do	42 00	42 00
do	do	John House.....	do	42 00	42 00
Master, lock 2 and bridge.....	do	W. Weaver.....	do	42 00	42 00
Assistant.....	do	T. Johnson.....	do	42 00	42 00
do	do	W. H. Charles.....	do	42 00	42 00
do	do	John Sullivan.....	do	42 00	42 00
St. Paul Street Bridge.....	do	Wm. McClorey.....	do	38 00	38 00
Assistant.....	do	Tom Sullivan.....	do	38 00	38 00
Master, lock 3.....	do	Alex. Walker.....	do	38 00	38 00
Assistant.....	do	Fred Sherer.....	do	38 00	38 00
Master, lock 4 and bridge.....	do	Jas. Livingston.....	do	42 00	42 00
Assistant.....	do	James Boyle.....	do	42 00	42 00
Master, locks 5, 6, 7, and bridge..	do	Robert Boyle.....	do	42 00	42 00
Assistant.....	do	Michael White.....	do	42 00	42 00
Master, locks 8, 9, 10 and 11.....	do	Barney Clarke.....	do	38 00	38 00
Assistant.....	do	C. W. Bradley.....	do	38 00	38 00
Master, locks 12, 13, 14, 15 and bridge	do	James Cogan.....	do	38 00	38 00
Assistant.....	do	Martin Nestor.....	do	38 00	38 00
Master, locks 16, 17, 18.....	do	Barnett Darby.....	do	38 00	38 00
Assistant.....	do	Robert Gibson.....	do	38 00	38 00
Master, locks 19, 20 and 21.....	do	Ed. McLaughlin.....	do	38 00	38 00
Assistant.....	do	Robert Bradley.....	do	38 00	38 00
Master, lock 22 and Keefer bridge	do	John McNamara.....	do	38 00	38 00
Assistant.....	do	A. W. Bradley.....	do	38 00	38 00
Master, locks 23, 24 and bridge...	do	John Neil.....	do	42 00	42 00
Assistant.....	do	D. Ryckman.....	do	38 00	38 00
Master, lock 25 and guard lock...	do	Jehn Fluellyn.....	do	38 00	38 00
Assistant.....	do	Rufus Swazzie.....	do	38 00	38 00
Hurst's bridge.....	do	Jacob Renter.....	do	38 00	38 00
Marlatt's do.....	do	Nelson Higgins.....	do	38 00	38 00
Allanburg bridge.....	do	A. H. Upper.....	do	38 00	38 00
do lock.....	do	Wm. Higgins.....	do	38 00	38 00
Assistant.....	do	Lewis Mosier.....	do	38 00	38 00
Allanburg guard lock.....	do	Aaron Higgins.....	do	38 00	38 00
Assistant.....	do	Oscar Upper.....	do	38 00	38 00
Foreman on banks.....	do	John Gearin.....	do	38 00	38 00
<i>Feeder Division.</i>					
Overseer.....	May, 1887..	John E. Scott.....	do	800 00	66 67
Junction lock.....	do	Geo. Hannah.....	do	38 00	38 00
Feeder Flout bridge.....	do	John Henderson.....	do	10 00	10 00
Stromness do.....	do	George Harris.....	do	38 00	38 00
Port Maitland lock.....	do	Michael Corcoran.....	do	38 00	38 00
Assistant.....	do	Wm. Brennan.....	do	38 00	38 00
Regulating water, &c., Dunnville	do	Chas. Trush.....	do	38 00	38 00
					1,862 67

### ACCOUNTS Chargeable to Old Welland and Feeder Canal.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
May .....	To Wm. Chelew, St. Catharines—33 gallons coal oil, at 23c.....		7 59
do .....	To Dunnville Electric Light Co., Dunnville—62 lights for guard lock and swing bridge.....		10 34
do .....	To W. F. McCartney, G. N. W. Telegraph Co., Thorold—Telegrams from March to date.....		4 75
do .....	To James Wilson, Thorold—10 gallons coal oil, \$2.50 ; 11 gallons lard oil, \$11.....		13 50
	Total.....		36 18

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of June, 1887, to pay Permanent Establishments and Accounts chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
Superintendent.....	June, 1887	Wm. Ellis.....	1 month...	2,900 00	241 66	14 50
Paymaster.....	do ..	R. D. Dunn.....	1 do ..	1,400 00	116 66	7 00
Accountant.....	do ..	J. E. Lawrence....	1 do ..	1,000 00	83 34	
<i>Harbor Masters.</i>						
Port Dalhousie.....	do ..	Wm. Cooke.....	1 do ..	750 00	62 50	3 75
Port Colborne.....	do ..	C. H. Carter.....	1 do ..	750 00	62 50	3 75
<i>Overseers.</i>						
Division No. 1.....	do ..	J. G. Demare.....	1 do ..	100 00	100 00	6 00
do 2.....	do ..	James Dell.....	1 do ..	75 00	75 00	
do 3.....	do ..	A. Hamilton.....	1 do ..	60 00	60 00	3 60
do 4.....	do ..	T. R. Secord.....	1 do ..	65 00	65 00	
Storekeeper, &c.....	do ..	W. W. Wait.....	1 do ..	65 00	65 00	
Messenger, &c.....	do ..	Thos. J. Hartley...	30 days...	1 25	37 50	
In charge of steel and iron bridges also steam pumps, &c.....	do ..	W. Chatfield.....	1 month...	75 00	75 00	
<i>Division No. 1.</i>						
Port Dalhousie Ferry.....	do ..	Frank Smith.....	26 days...	1 40	36 40	
Master, Lock 1.....	do ..	J. M. Woodall.....	1 month...	42 00	42 00	1 55
Assistant.....	do ..	George Howe.....	1 do ..	45 00	45 00	1 40
do .....	do ..	John Paxton.....	1 do ..	45 00	45 00	
do .....	do ..	J. Williams.....	1 do ..	45 00	45 00	
Master, Bridge 1.....	do ..	Frank Darby.....	1 do ..	45 00	45 00	
Assistant.....	do ..	Phil. Ohnith.....	1 do ..	45 00	45 00	
Master, Lock 2.....	do ..	Alph Kelly.....	1 do ..	47 00	47 00	
Assistant.....	do ..	Richard Hutton....	1 do ..	45 00	45 00	
do .....	do ..	B. Merrit.....	1 do ..	45 00	45 00	
do .....	do ..	Geo. Bowman.....	1 do ..	45 00	45 00	
Master, Lock 3.....	do ..	J. Johnston.....	1 do ..	47 00	47 00	
Assistant.....	do ..	James Keys.....	1 do ..	45 00	45 00	
do .....	do ..	Con. Gorman.....	1 do ..	45 00	45 00	1 40
do .....	do ..	James Grogan.....	1 do ..	45 00	45 00	
Master, Bridge 2.....	do ..	John Flynn.....	1 do ..	45 00	45 00	1 40
Assistant.....	do ..	H. Alexander.....	1 do ..	45 00	45 00	



## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
<i>Division No. 1—Con.</i>				\$ cts.	\$ cts.	\$ cts.
Master, Lock 4.....	June, 1887	Jos. Franklin.....	1 month...	47 00	47 00	
Assistant.....	do	Samuel Hopkins...	1 do	45 00	45 00	
do	do	Wm. Altoft.....	1 do	45 00	45 00	
do	do	Jno. Woodall.....	1 do	45 00	45 00	
Master, Lock 5.....	do	Thos. Scott.....	1 do	47 00	47 00	
Assistant.....	do	Jno. Pennington...	1 do	45 00	45 00	
do	do	Thomas Jones.....	1 do	45 00	45 00	
do	do	John Wilde.....	1 do	45 00	45 00	
Master, Bridge 3.....	do	G. H. Brownlee...	1 do	45 00	45 00	
Assistant.....	do	M. Morarity.....	1 do	45 00	45 00	
Master, Lock 6.....	do	Peter Paxton.....	1 do	47 00	47 00	
Assistant.....	do	John Daley.....	1 do	45 00	45 00	
do	do	Chas. Newbold...	1 do	45 00	45 00	
do	do	W. Bowman.....	1 do	45 00	45 00	
Master, Bridge 5.....	do	Wm. Elliott.....	1 do	45 00	45 00	
Assistant.....	do	Geo. Spooner.....	1 do	45 00	45 00	
Master, Lock 7.....	do	C. B. Hare.....	1 do	47 00	47 00	
Assistant.....	do	M. Sullivan.....	1 do	45 00	45 00	
do	do	Wm. Boyle.....	1 do	45 00	45 00	
do	do	R. Freeman.....	1 do	45 00	45 00	1 40
Master, Bridge 6.....	do	Jas. W. Grant.....	1 do	45 00	45 00	
Assistant.....	do	Alex. Stewart.....	1 do	45 00	45 00	
Master, Lock 8.....	do	Michael Hayden...	1 do	47 00	47 00	
Assistant.....	do	Wm. Reid.....	1 do	45 00	45 00	
do	do	Robt. Secord.....	1 do	45 00	45 00	
do	do	M. McCormick.....	1 do	45 00	45 00	
Master, Lock 9.....	do	R. H. Watson.....	1 do	47 00	47 00	
Assistant.....	do	Geo. Millward...	1 do	45 00	45 00	
do	do	Jos. C. Longley...	1 do	45 00	45 00	
do	do	Alex. Bradley.....	1 do	45 00	45 00	
Master, Bridge 7.....	do	Jas. Whitten.....	1 do	45 00	45 00	
Assistant.....	do	Jno. Cushman.....	1 do	45 00	45 00	
Master, Lock 10.....	do	James Bradley.....	1 do	47 00	47 00	1 46
Assistant.....	do	James Mulvey.....	1 do	45 00	45 00	1 40
do	do	Henry Hare.....	1 do	45 00	45 00	1 40
do	do	Thos. Nelson.....	1 do	45 00	45 00	
Master, Bridge 8.....	do	Arthur Cain.....	1 do	45 00	45 00	
Assistant.....	do	Jno. McGeachie...	1 do	45 00	45 00	
Master, Lock 11.....	do	James Reynolds...	1 do	47 00	47 00	
Assistant.....	do	Alex. Wilson.....	1 do	45 00	45 00	1 40
do	do	W. P. Burleigh...	1 do	45 00	45 00	
do	do	James Webster.....	1 do	45 00	45 00	
Master, Lock 12.....	do	Wm. Strong.....	1 do	47 00	47 00	1 46
Assistant.....	do	E. Bradley.....	1 do	45 00	45 00	
do	do	F. Mughan.....	1 do	45 00	45 00	
do	do	Jas. McBride.....	1 do	45 00	45 00	
Master, Lock 13.....	do	Thos. Keating.....	1 do	47 00	47 00	
Assistant.....	do	Jos. Turner.....	1 do	45 00	45 00	
do	do	Alex. Soper.....	1 do	45 00	45 00	
do	do	John Lewin.....	1 do	45 00	45 00	
<i>Division No. 2.</i>						
Master, Bridge 9.....	June, 1887	Peter Secord.....	1 month...	45 00	45 00	
Assistant.....	do	Jno. Black.....	1 do	45 00	45 00	
Master, Lock 14.....	do	Con. Nestor.....	1 do	47 00	47 00	
Assistant.....	do	John Strong.....	1 do	45 00	45 00	
do	do	Ab. Brennan.....	1 do	45 00	45 00	
do	do	Thos. Flynn.....	1 do	45 00	45 00	
Master, Lock 15.....	do	Thomas Aikens.....	1 do	47 00	47 00	1 40
Assistant.....	do	James McAuley...	1 do	45 00	45 00	1 40
do	do	W. J. Wilson.....	1 do	45 00	45 00	
do	do	Robt. Boyle.....	1 do	45 00	45 00	
Master, Lock 16.....	do	Thomas Burley...	1 do	47 00	47 00	



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Superannuation.
<i>Division No. 2.</i>				\$ cts.	\$ cts.	\$ cts.
Assistant.....	June, 1889	Sam. Bradley.....	1 month..	45 00	45 00	
do .....	do	Jno. Holland.....	1 do ..	45 00	45 00	
do .....	do	Austin Moran.....	1 do ..	45 00	45 00	0 84
Master, Lock 17.....	do	Michael Coody.....	1 do ..	47 00	47 00	
Assistant.....	do	F. Shuman.....	1 do ..	45 00	45 00	
do .....	do	Michael Glynn.....	1 do ..	45 00	45 00	
do .....	do	W. Gulbraith.....	1 do ..	45 00	45 00	
Master, Lock 18.....	do	J. H. Pearson.....	1 do ..	47 00	47 00	
Assistant.....	do	Geo. Newton.....	1 do ..	45 00	45 00	
do .....	do	Thos. Hanna.....	1 do ..	45 00	45 00	
do .....	do	Joseph Cook.....	1 do ..	45 00	45 00	
Master, Lock 19.....	do	R. Grisdale.....	1 do ..	47 00	47 00	
Assistant.....	do	F. Johnson.....	1 do ..	45 00	45 00	
do .....	do	F. Horsche.....	1 do ..	45 00	45 00	
do .....	do	R. Grenville.....	1 do ..	45 00	45 00	
Master, Lock 20.....	do	Jacob Renter.....	1 do ..	47 00	47 00	
Assistant.....	do	Isaac McMann.....	1 do ..	45 00	45 00	
do .....	do	John Collins.....	1 do ..	45 00	45 00	1 40
do .....	do	Thos. Freel.....	1 do ..	45 00	45 00	1 40
Master, Lock 21.....	do	F. C. Berrimen.....	1 do ..	47 00	47 00	
Assistant.....	do	John Cole.....	1 do ..	45 00	45 00	
do .....	do	James Ellis.....	1 do ..	45 00	45 00	
do .....	do	Adelbert Clarke.....	1 do ..	45 00	45 00	
Master, Lock 22.....	do	Wm. Hannah.....	1 do ..	47 00	47 00	
Assistant.....	do	Wm. Camp.....	1 do ..	45 00	45 00	
do .....	do	Wm. Boyle.....	1 do ..	45 00	45 00	
do .....	do	Hy. Phillips.....	1 do ..	45 00	45 00	
Master, Lock 23.....	do	T. Bonewell.....	1 do ..	47 00	47 00	
Assistant.....	do	James Smerdon.....	1 do ..	45 00	45 00	
do .....	do	T. Commarford.....	1 do ..	45 00	45 00	1 40
do .....	do	John Corbett.....	1 do ..	45 00	45 00	1 40
Master, Lock 24.....	do	R. Campbell.....	1 do ..	47 00	47 00	
Assistant.....	do	M. Henderson.....	1 do ..	45 00	45 00	
do .....	do	Thos. Bradley.....	1 do ..	45 00	45 00	
do .....	do	Henry Kermes.....	1 do ..	45 00	45 00	
Master, Bridge 10.....	do	Wm. Fleming.....	1 do ..	45 00	45 00	
Assistant.....	do	F. Gulbraith.....	1 do ..	45 00	45 00	
Master, Lock 25.....	do	M. McCarthy.....	1 do ..	47 00	47 00	1 46
Assistant.....	do	Geo. Detlor.....	1 do ..	45 00	45 00	
do .....	do	Sam. Campbell.....	1 do ..	45 00	45 00	
do .....	do	Robert Wright.....	1 do ..	45 00	45 00	
Master, Bridge 12.....	do	Geo. A. Thomas.....	1 do ..	45 00	45 00	
Assistant.....	do	Robert Camp.....	1 do ..	45 00	45 00	
Master, Guard Lock.....	do	James Winton.....	1 do ..	47 00	47 00	
Assistant.....	do	Fred Lay.....	1 do ..	45 00	45 00	1 40
do .....	do	Samuel Frazer.....	1 do ..	45 00	45 00	
do .....	do	James Cook.....	1 do ..	45 00	45 00	
Master, Bridge 13.....	do	Richard Higgins.....	1 do ..	45 00	45 00	1 40
Assistant.....	do	William Upper.....	1 do ..	45 00	45 00	
<i>Division No. 3.</i>						
Master, Bridge 14.....	do	Daniel O'Leary.....	1 do ..	45 00	45 00	1 40
Assistant.....	do	Geo. A. Upper.....	1 do ..	40 00	40 00	
Master, Bridge 15.....	do	Bart. O'Leary.....	1 do ..	45 00	45 00	1 40
Assistant.....	do	Geo. Thompson.....	1 do ..	45 00	45 00	1 40
Port Robinson Ferry.....	do	R. Stevenson.....	1 do ..	36 00	36 00	
do Lock.....	do	James McCoppin.....	1 do ..	47 00	47 00	1 46
Assistant.....	do	James Walsh.....	1 do ..	45 00	45 00	1 40
Master, Bridge 16.....	do	James Edmonds.....	1 do ..	45 00	45 00	1 40
Assistant.....	do	Geo. P. Misner.....	1 do ..	45 00	45 00	

PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Superannuation.
<i>Division No. 4.</i>				\$ cts.	\$ cts.	\$ cts.
Master, Welland Lock.....	June, 1889	William Wilson.....	1 month..	45 00	45 00	
do Bridge 17.....	do ...	James Foster.....	1 do ...	45 00	45 00	1 40
Assistant.....	do ...	Luke J. Brennan.....	1 do ...	45 00	45 00	
Master, Bridge 19.....	do ...	Chas. Hannah.....	1 do ...	45 00	45 00	1 40
Assistant.....	do ...	Alex. Hannah.....	1 do ...	45 00	45 00	1 40
Humberstone Ferry.....	do ...	Michael Traynor....	1 do ...	36 00	36 00	
Master, Bridge 21.....	do ...	Emil Boneberg.....	1 do ...	45 00	45 00	1 40
Assistant.....	do ...	Isaac Shisler.....	1 do ...	45 00	45 00	
Port Colborne Lock and Bridge.....	do ...	John Henshaw....	1 do ...	42 00	42 00	1 55
do do ...	do ...	John Cook.....	1 do ...	42 00	42 00	1 31
do do ...	do ...	John Stevens.....	1 do ...	42 00	42 00	1 31
do do ...	do ...	William Aikens.....	1 do ...	42 00	42 00	1 31
do do ...	do ...	J. Dunlap.....	1 do ...	42 00	42 00	
Port Colborne Ferry.....	do ...	John Bradley.....	1 do ...	42 00	42 00	1 57
Signalling and controlling safe passage of vessels through Old Aqueduct and Welland, night and day.....	do ...	Joseph McMurray..	30 days...	1 50	45 00	
	do ...	Robert Simpson.....	30 do ...	1 50	45 00	
	do ...	William Nixon.....	30 do ...	1 50	45 00	
	do ...	James Nixon.....	30 do ...	1 50	45 00	
<b>MACHINISTS.</b>						
<i>Divisions Nos. 1 and 2.</i>						
Keeping machinery connected with lock gates and waste weirs in proper order throughout Divisions Nos. 1 and 2	do ...	Samuel Houston....	25½ do ...	2 00	51 00	
—Night .....	do ...	William Mossip....	25½ do ...	2 00	51 00	
	do ...	John McMillan.....	35½ do ...	2 00	71 00	
	do ...	Thomas Ryan.....	35½ do ...	1 75	62 12	
	do ...	J. H. Booth, h.&w.	32 do ...	1 50	48 00	
Diver.....	do ...	Ed. Smiley.....	25 do ...	2 00	50 00	
					8,306 68	90 34

## ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
June 1-30...	To G. N. W. Telegraph Co., St. Catharines—Telegrams for June, 1887.....		5 83
do 1-30...	G. N. W. Telegraph Co., E. F. Dwyer, agent, Port Dalhousie—Telegrams for June, 1887.....		1 78
do 30...	C. P. R. Telegraph Co., St. Catharines—Telegrams for May and June, 1887.....		2 24
do 30...	Henry Mussen, Allanburgh—Telegrams, May and June, 1887.....	1 08	
do 1-20...	Pen holders and ink, 15 cts.; envelopes and stamps.....	0 45	
do 15-17...	Repairing clock.....	1 00	
do 1-30...	3½ gals. coal oil, at 30 cts.; 1 gal. lard oil, at \$1.....	2 13	4 66
do 30...	Bell Telephone Co., Welland—Conversations during month of June.....		6 10
do 30...	St. Catharines Post Office, St. Catharines—Box rent to Jan. 1, 1888.....		5 00
do 30...	Welland Post Office, Welland—Post office box, Jan. 1, 1887, to Jan. 1, 1888.....	2 00	
	Postage stamps.....	1 20	3 20
do 30...	L. G. Carter, Port Colborne—Postage and postal cards, 3 months ending June 30, 1887.....		5 72
do 1-30...	W. N. Garden, Welland—24 gals. coal oil, at 30 cts.....	7 20	
	Paid repairing boat.....	1 00	
	3 gals lard oil, at \$1; 6 lbs. oatmeal, at 25 cts.....	3 25	
	1 box matches.....	0 15	11 60
do 1-30...	John Mathews, Port Colborne—19 gallons coal oil.....	5 70	
	¼ gallon lard oil.....	0 25	5 95
April 1...	Wm. Pike, Thorold—2,440 lbs coal, at \$6.50 per ton.....		7 93
June 30...	J. G. Demare, Overseer Division No. 1, Port Dalhousie—Use of horse and waggon in connection with duties of overseer, 3 months ending June 30, 1887, at \$150 per annum.....		37 50
do 30...	James Dell, Overseer Division No. 2, Thorold—Use of horse and waggon in connection with duties of overseer, 3 months ending June 30th, 1887, at \$150 per annum.....	37 50	
	3 months' rent of house, at \$8.....	24 00	61 50
do 30...	A. Hamilton, Overseer Division No. 3, Port Robinson—3 months' rent of house, at \$8.....	24 00	
Mar. 22...	Railway fare to St. Catharines and return.....	0 50	
	Paid for repairs to pump on pile driver.....	0 35	
	1 time book.....	0 20	
do 22 } June 30 }	Postage and wrappers.....	0 66	25 71
April 1...	Thos. R. Secord, Overseer Division No. 4, Port Colborne—1 railway fare, St. Catharines and return.....	1 20	
June 30...	46 do Welland do at 45c.....	20 70	
	25 do Air Line do at 25c.....	6 25	
	5 do Bertie do at 50c.....	2 50	30 65
do 30...	Grand Trunk Railway Company, St. Catharines—Wages for 8 railway bridge tenders, St. Catharines and Thorold, 1 month each, at \$45.....		360 00
do 1-30...	W. W. Wait, St. Catharines—Services of horse and waggon for delivering supplies to and from store house.....		20 00





PAY-LIST in duplicate of persons employed on the Old Welland and Feeder Canal during the month of June, 1887, to pay Permanent establishments and Accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
Overseer.....	June, 1887	John B. Smyth.....	1 month...	100 00	100 00	6 00
Master, Lock 1 and Bridge..	do	Saml. Duffin.....	1 do	42 00	42 00	1 31
Assistant.....	do	Wm. L. Smith.....	1 do	42 00	42 00	1 31
do	do	Robt. Edgraff.....	1 do	42 00	42 00	1 31
do	do	John Hoare.....	1 do	42 00	42 00	
Master, Lock 2 and Bridge..	do	Walter Weaver.....	1 do	42 00	42 00	over 35 yrs
Assistant.....	do	T. Johnson.....	1 do	42 00	42 00	1 31
do	do	W. H. Charles.....	1 do	42 00	42 00	1 31
do	do	Jno. Sullivan.....	1 do	42 00	42 00	1 31
St. Paul Street Bridge.....	do	Wm. McClorey.....	1 do	38 00	38 00	1 19
Assistant.....	do	Tim Sullivan.....	1 do	38 00	38 00	1 19
Master, Lock 3.....	do	Alex. Walker.....	1 do	38 00	38 00	1 19
Assistant.....	do	Fred. Sherer.....	1 do	38 00	38 00	1 19
Master, Lock 4 and Bridge..	do	James Livingston.....	1 do	42 00	42 00	1 31
Assistant.....	do	James Boyle.....	1 do	42 00	42 00	
Master, Locks 5, 6, 7 and Bridge.....	do	Michael White.....	1 do	42 00	42 00	1 31
Assistant.....	do	Robert Boyle.....	1 do	42 00	42 00	1 31
Master, Locks 8, 9, 10 & 11.	do	Barney Clarke.....	1 do	38 00	38 00	1 19
Assistant.....	do	C. W. Bradley.....	1 do	38 00	38 00	1 19
Master, Locks 12, 13, 14, 15 and Bridge.....	do	James Logan.....	1 do	38 00	38 00	1 19
Assistant.....	do	Martin Nester.....	1 do	38 00	38 00	1 19
Master, Locks 16, 17 and 18.	do	B. Darby.....	1 do	38 00	38 00	1 19
Assistant.....	do	R. Gibson.....	1 do	38 00	38 00	1 19
Master, Locks 19, 20 and 21.	do	E. McLaughlin.....	1 do	38 00	38 00	1 19
Assistant.....	do	Robt. Bradley.....	1 do	38 00	38 00	1 19
Master, Lock 22 and Bridge Keeper.....	do	John McNamara.....	1 do	38 00	38 00	1 19
Assistant.....	do	A. W. Bradley.....	1 do	38 00	38 00	1 19
Master, Locks 23, 24 and Bridge.....	do	John Neil.....	1 do	42 00	42 00	1 31
Assistant.....	do	D. Ryckman.....	1 do	38 00	38 00	1 19
Master, Lock 25 and Guard Lock.....	do	John Fluellyon.....	1 do	38 00	38 00	
Assistant.....	do	Rufus Swazzie.....	1 do	38 00	38 00	1 19
Hurst's Bridge.....	do	Jacob Renter.....	1 do	38 00	38 00	1 19
Marlatt's Bridge.....	do	Nelson Higgins.....	1 do	38 00	38 00	1 19
Allanburg do	do	A. H. Upper.....	1 do	38 00	38 00	1 19
do Lock.....	do	Wm. Higgins.....	1 do	38 00	38 00	over 35 yrs
Assistant.....	do	Lewis Mosier.....	1 do	88 00	38 00	1 19
Allanburg Guard Lock.....	do	Aaron Higgins.....	1 do	38 00	38 00	over 35 yrs
Assistant.....	do	Oscar Upper.....	1 do	38 00	38 00	
Foreman on banks.....	do	John Gearin.....	1 do	38 00	38 00	1 43
<i>Feeder Division.</i>						
Overseer.....	do	John E. Scott.....	1 do	800 00	66 66	4 00
Junction Lock.....	do	Geo. Hannah.....	1 do	38 00	38 00	1 43
Feeder Float Bridge.....	do	John Henderson.....	1 do	10 00	10 00	
Stromness do	do	George Harris.....	1 do	38 00	38 00	1 19
Port Maitland Lock.....	do	Michael Corcoran.....	1 do	38 00	38 00	1 19
Assistant.....	do	W. M. Brennan.....	1 do	38 00	38 00	
Regulating water at Dunnville.....	do	Chas. Thrush.....	1 do	38 00	38 00	over 35 yrs
					1,862 66	52 14

**ACCOUNTS chargeable to Old Welland and Feeder Canal, Staff and Working Expenses.**

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
June 30...	To John B. Smyth, Overseer, Merritton— Use of horse and waggon in connection with duties of overseer, 3 months ending June 30th, 1887, at \$150 per annum.....	37 50	
	3 months' rent of house, at \$8.00.....	24 00	
			61 50
do 30...	John E. Scott, Overseer, Dunnville, use of horse and waggon in connection with duties of overseer, 3 months ending June 30th, 1887, as per original account.....		35 25
do 30...	Dunnville Electric Light Co., Dunnville, lighting swing bridge and guard lock, 60 lights, 10½.....		10 00
do 30...	G. N. W. Telegraph Co., Dunnville, telegrams from Janu- ary 15th, 1887, to June 20th, 1887.....		9 56
			<b>\$116 31</b>



## RENEWALS AND REPAIRS.

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of July, 1886, to pay Carpenters, Laborers, Teams and accounts, chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Rebuild ferry scow; repair floats and walings on locks and bridges; making and putting up desks; collectors' new office, making tank for same, repair, approach to bridge and old lock 1, &c., &c.....	July, 1886.	H. Vanderburgh.....	1 month..	75 00	75 00
do do .....	do	Geo. C. Holmes.....	26 days...	2 25	58 00
do do .....	do	Wm. M. Jones.....	27 do ...	2 00	54 00
do do .....	do	James Hindson.....	28½ do ...	2 00	57 00
do do .....	do	Wm. Patterson.....	28½ do ...	2 00	57 00
do do .....	do	C. Demare.....	27 do ...	2 00	54 00
do do .....	do	Alf. Coons.....	25 do ...	2 00	50 00
do do .....	do	Jno. Sheltes, team..	28½ do ...	3 00	85 50
Watchman, gate, yard shop Port Dalhousie.....	do	Oscar Sharp.....	31 do ...	125 00	38 75
do do Lock 13...	do	Jno. McMillan.....	31 do ...	120 00	37 20
do do do ...	do	Henry Hughes.....	31 do ...	120 00	37 20
Helping to rebuild ferry scow, repairing wheelbarrows, painting bridges, caulking ferry scow, &c.....	do	William Mossip.....	27 do ...	2 00	54 00
do do .....	do	John House.....	13 do ...	1 75	22 75
do do .....	do	Richard Marshall....	27 do ...	1 75	47 25
do do .....	do	John Doig.....	27½ do ...	1 62½	44 28
do do .....	do	Robert Johnson.....	27 do ...	1 62½	43 88
do do .....	do	John Howe.....	3 do ...	1 25	3 75
Opening up ditches; building boundary fence Nelles farm; taking down vault in collector's old office; putting cement concrete under floor of overseer's house, and putting in tile drain to same, &c .....	do	Con. Reid, foreman...	27 do ...	1 75	47 25
do do .....	do	John Murvil.....	15 do ...	1 50	} 37 50
do do .....	do	W. Bowman.....	12 do ...	1 25	
do do .....	do	Andrew Secord.....	27 do ...	1 25	33 75
do do .....	do	J. Johnson, teamster.	22½ do ...	3 00	66 75
Laborers cutting thistles, &c., obnoxious weeds along banks of the Canal and Government lands adjacent.....	do	J. Wilson.....	2 do ...	1 25	2 50
do do .....	do	Peter Lewis.....	12 do ...	1 25	15 00
do do .....	do	Chas. Johnson.....	13 do ...	1 25	16 25
do do .....	do	Lewis Berry.....	9 do ...	1 25	11 25
do do .....	do	George Cox.....	12 do ...	1 25	15 00
do do .....	do	James Parker.....	11 do ...	1 25	13 75
do do .....	do	Joseph Davis.....	10 do ...	1 25	12 50
do do .....	do	Willis Starks.....	12 do ...	1 25	15 00
do do .....	do	Norman McLeod.....	11 do ...	1 25	13 75
do do .....	do	John Evans.....	8 do ...	1 25	10 00
do do .....	do	W. A. McClare.....	7 do ...	1 25	8 75
Cutting thistles and weeds on all Government property, &c .....	do	Chas. Johnson.....	27 do ...	1 75	47 25
do do .....	do	F. Donahue.....	10 do ...	1 50	15 00
do do .....	do	John Cole.....	4 do ...	1 50	6 00
do do .....	do	T. McNamara.....	27 do ...	1 25	33 75
do do .....	do	Robert Pew.....	27 do ...	1 25	33 75
do do .....	do	William Clarke.....	20 do ...	1 25	25 00
do do .....	do	Arthur Bradley.....	23 do ...	1 25	28 75

PAY-LIST in duplicate of persons employed on the Welland Canal, &c — *Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Cutting thistles and weeds on all Government property, &c.....	July, 1886	William Pew.....	18 days...	1 25	22 50
do do ...	do ...	John Higgins, W.B....	13 do ...	0 75	9 75
do do ...	do ...	T. Bradley.....	1 do ...	0 75	0 75
do do ...	do ...	R. Hoover, teamster.	4½ do ...	3 00	12 75
Cutting thistles and weeds along canal banks, both sides, and Government lands from Allamburg to Bridge 16; building fence, &c.; around Lock Tender's house, Allamburg, &c.	do ...	R. A. Booth.....	27 do ...	1 75	47 25
do do ...	do ...	Geo. A. Jordon.....	24½ do ...	1 25	30 63
do do ...	do ...	Jno. Madigan.....	25½ do ...	1 25	31 88
do do ...	do ...	Geo. Brown .....	25½ do ...	1 25	31 88
do do ...	do ...	Jas. Hansel .....	25 do ...	1 25	31 25
do do ...	do ...	Ben. Reafern .....	25½ do ...	1 25	31 88
do do ...	do ...	Jno. McPherson .....	9½ do ...	1 25	12 19
do do ...	do ...	George Pen, W.B.....	10 do ...	0 75	7 50
do do ...	do ...	Dan Kelley, team.....	2½ do ...	3 00	7 50
Replanking swing bridge, &c.....	do ...	Jacob Wilkerson.....	18 do ...	2 00	36 00
Cutting thistles and weeds, both sides of canal, from Bridge 16 to Welland; cleaning out ditches, &c.	do ...	James Clancy .....	27 do ...	1 75	47 25
do do ...	do ...	Hugh Bailey .....	25 do ...	1 25	31 25
do do ...	do ...	Mich. Blake .....	27 do ...	1 25	33 75
do do ...	do ...	Thos. Waldron.....	27 do ...	1 25	33 75
do do ...	do ...	George Nolan .....	25 do ...	1 25	31 25
Building kitchen, Lock Tender's house, Pt. Colborne; repairing floats, &c.	do ...	Wm. Cook .....	27 do ...	1 75	47 25
do do ...	do ...	J. Cook .....	27 do ...	1 50	40 50
do do ...	do ...	J. Moyer.....	4 do ...	1 50	36 00
do do ...	do ...	J. Ryan .....	24 do ...	1 25	32 50
Cutting thistles and weeds both sides of canal and Government lands.	do ...	W. Deeks .....	26 do ...	1 25	33 75
do do ...	do ...	C. Keen .....	27 do ...	1 25	33 75
do do ...	do ...	E. Sloat .....	27 do ...	1 25	33 75
do do ...	do ...	M. Anthes.....	27 do ...	1 25	33 75
do do ...	do ...	Sam Cook, team.....	3½ do ...	3 00	9 75
Repairing Lock Tender's houses and premises; repairing Locks 2 and 4, also St. Paul street and Locks 4 and 7 bridges; building new bridge over roadway, Shickluna sawmill; tearing down old plaster; cleaning office, &c., and sheeting ceiling with tongue and groove sheeting, &c. Gate, yard and shop, St. Catharines.	do ...	N. Moray.....	31½ do ...	2 75	85 94
do do ...	do ...	P. Shortell.....	28½ do ...	2 00	56 50
do do ...	do ...	T. Rapsey.....	27½ do ...	2 00	55 50
do do ...	do ...	S. Radcliffe .....	28½ do ...	2 00	57 50
do do ...	do ...	R. Wilson .....	28½ do ...	1 25	35 94
do do ...	do ...	Chas. Hill, team .....	27 do ...	3 00	81 00
do do ...	do ...	J. W. Boyle .....	31 do ...	1 00	31 00



**PAY LIST in duplicate of persons employed on the Welland Canal, &c —Continued.**

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Building fence along hydraulic race and Lock Tenders' premises, Lock 15; digging out for bridge approach over race-way, cutting thistles and weeds, repairing floats, &c.	July, 1887.	Thos. O'Neil.....	27 days....	1 75	47 25
do do	do	Wm. Chandler.....	27 do	1 50	40 50
do do	do	John Hemphill.....	27 do	1 25	33 75
do do	do	Jas. Boyle.....	27 do	1 25	33 75
do do	do	Wm. Assell.....	15½ do	1 25	19 38
do do	do	Richard Grant.....	25 do	1 25	31 25
Quarrying out stone, loading and unloading scow with same for Lock 15 bridge; digging out for new foundation, bridge, Lock 15, &c.	do	Jas. Hamilton, forem'n	27½ do	2 00	57 00
do do	do	Jas. Reynard.....	23½ do	1 50	35 25
do do	do	Arthur Bradley.....	26 do	1 50	39 00
do do	do	Pat. O'Neil.....	28½ do	1 50	42 75
do do	do	Jas. Faywell.....	27 do	1 50	40 50
do do	do	J. Longley.....	27 do	1 50	40 50
do do	do	John Dundas.....	24½ do	1 50	36 75
do do	do	Abr. Bradley.....	26 do	1 50	39 00
do do	do	Wm. Tierney, W. B.	27 do	0 75	20 25
do do	do	John Coyle, team.	25½ do	3 00	76 50
Building new swing-bridge, Lock 15; repairing bridges; taking down old swing-bridge, Lock 15; building new shop, Lock 22, &c.	do	F. T. Walton.....	29½ do	2 75	81 12
do do	do	S. R. Bradley.....	25 do	2 00	50 00
do do	do	D. S. Walton.....	23½ do	2 00	47 00
do do	do	Ed. Smith.....	26 do	2 00	52 00
do do	do	W. Trappnell.....	26 do	2 00	52 00
do do	do	Wm. Dunn.....	26½ do	2 00	53 00
do do	do	F. Shuman.....	28 do	1 50	42 00
<b>DUNNVILLE.</b>					
Repairing swing and stationary bridges, painting bridges, &c.	do	James Edgar.....	27 do	1 50	40 50
do do	do	R. Mitchell.....	1½ do	1 50	2 25
do do	do	John Taylor.....	2 do	1 50	3 00
do do	do	John Thrush.....	27 do	1 25	33 75
do do	do	Nelson Banks.....	1½ do	1 25	1 88
Caulking flood-gates on dam, and moving obstructions, &c.	do	John Bessey.....	13 do	1 25	16 25
do do	do	E. Webber.....	11 do	1 25	13 75
do do	do	Thos. Eaton, team.	2 do	3 00	6 00
do do	do	M. A. Smith do	8 do	3 00	24 00
Cutting thistles and weeds along banks of Feeder, both sides, and Government lands.	do	John Henderson.....	18 do	1 25	22 50
do do	do	Peter Gibson.....	6 do	1 25	7 50
do do	do	Joseph Gibson.....	6 do	1 25	7 50
do do	do	D. Kennard.....	6 do	1 25	7 50
do do	do	S. E. Kennard.....	6 do	1 25	7 50
do do	do	Michael Horton.....	6 do	1 25	7 50
do do	do	A. Petit.....	17 do	1 25	21 25
do do	do	F. Fritz.....	5 do	1 25	6 25
do do	do	A. McDonald.....	27 do	1 00	27 00
do do	do	Thos. Bessey.....	8 do	1 25	10 00
do do	do	Robert Harris.....	4 do	1 25	5 00
do do	do	James Gamble.....	3 do	1 25	3 75
do do	do	J. Henderson, team.	4 do	2 50	10 00
do do	do	T. McDonald do	8 do	2 50	20 00
					3,872 78



## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
July 1-31...	To Coy Bros., St. Catharines—		
	3 ship augers, \$335; 500 lbs. axle grease, at \$7, \$35.....	38 35	
	3 bales oakum, at \$5, \$15; 2 doz. scythe stones, \$2.40....	17 40	
	550 lbs. spikes, at \$5, \$27.50; 5 galls. turpentine, at 60c, \$1.....	31 50	
	1 gall. shellac, \$2.75; 4 paint brushes, \$3.50.....	6 25	
	5 prs. bents, at 9c., 45c.; 30 lbs. F nails, at 8c., \$2.40; 210 lbs. nails, at 3½c., \$7.35.....	10 20	
	145 galls. lubricating oil, at 60c.....	87 00	
	100 car bolts, \$2; 2 scrapers, \$1; 1 Yale lock, \$2.25 ....	5 25	
	12 brass rings, \$1.50; 2 drawer locks, \$1.....	2 50	
	3 latches, 75c.; 5 door stops, 50c.; 1 packet nails, 15c....	1 40	
	2 night latches and keys, \$3; 500 deck plugs, \$1.75.. ....	4 75	
	45 lbs. castor oil, at 15c., \$6.75; 1 brass door lock, 75c..	7 50	
	1,000 feet 2½ in galvanized steel rope .....	190 00	
			402 10
do 1-31...	James Wilson, Thorold—		
	8 scythes, at \$1, \$8; 3 snaths, at 90c., \$2.70.....	10 70	
	14 stones, at 15c., \$2.10; 4 lbs. clout nails, at 15c., 60c..	2 70	
	1 keg spikes, \$6.75; 200 lbs. metallic paints, at 12½c, \$25	31 75	
	1 iron pot, \$1.50; 10 lbs. brimstone, at 10c., 50c.....	2 00	
			47 15
do 1-31...	Henry Mussen, Allanburgh—		
	6 galls. coal oil, at 30c., \$1.80; 2 pkgs. lamp black, 15c.	1 95	
	3 paint brushes, \$1.15; 4 prs. strap hinges, \$1.10.....	2 25	
	1 large door lock, \$1.50; 50 lbs. nails, at 4c., \$2; 47 lbs. spikes, at 5c., \$2.35.....	5 85	
	1 box matches, 15c.; 8 lights glass, at 7c., 56c.; 9 lbs. putty, at 5c., 45c.....	1 16	
	3 chimneys, 24c.; 5 lbs shingle nails, at 6c., 30c.; sand paper, 2c.....	0 56	
	Hasp and lock, 50c.....	0 50	
			12 27
do 1-31...	W. N. Garden, Welland—		
	12 lbs. oatmeal, 50c.; 21 lbs. nails, at 5c., \$1.05.....	1 55	
	1 lock, 25c.; 1 lb. blue paint, 5c.; 2 pkgs. lamp black, 10c.	0 40	
			1 95
do 1-31...	John Mathews, Port Colborne—		
	5 scythe stones, 48c.. 5 lbs. manilla rope, at 12c., 60c....	1 08	
	3 cakes chalk, 15c.; 1 pkg. tacks, 20c.; 100 lbs. nails, \$4.50.....	4 85	
	15 lbs. wrought nails, at 8c., \$1.20; 2 gross screws, 77c.; 2 locks, \$1.10.....	3 07	
	1 pr. butts, 10c.; 3 galls. boiled oil, at 80c., \$2.40; 10 lights glass, \$1.50.....	4 00	
	Rings and staples, 15c.; 12 lbs. putty, at 4c., 48c.; 8 window fastners, 24c.....	0 87	
	19 lbs. manilla rope, at 11c.....	2 09	
	Paid freight .....	0 35	
			16 31
do 1-31...	B. Greening & Co., Hamilton—1,000 ft. ½ in. galvanized steel rope.....		170 00
do 1-31...	J. H. Stanley, Port Colborne—		
	50 rolls wall paper, at 10c.....	5 00	
	30 yds. border.....	0 90	
		5 90	
	By wall paper returned.....	0 66	
			5 24
do 1-31...	George Gibson, P.L.S., St. Catharines—		
	3 days making measurements and staking out canal boundaries, Port Colborne and Humberstone.....	5 00	
	Car fares and hotel expenses. ....	4 65	
			19 65

# ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.—*Con.*

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
July 31...	John Allow, St. Catharines— Painting and lettering sign for Canal Office, Port Dalhousie.....		13 00
do 1-31...	W. A. Bonaberg, Port Colborne— 4½ days' plastering, &c., at \$2.50..... 3 do helper, at \$1.25, \$3.75: brick, &c., \$2.50.....	11 25 6 25	17 50
do 8...	Garroll and Carroll, Toronto—3 barrels Portland cement.....		8 50
do 1-31...	John Battle, Thorold— 12 barrels cement, at \$1.50..... 3 bushels cement, 75c.; 1½ yards sand, at \$1.75, \$2.62... Teaming.....	18 00 3 37 1 50	22 87
do 1-31...	H. Marcheter, Wallanburgh—Making and putting up one patent self-acting protection gate (to protect the highway train against accidents) end of Niagara Street Bridge, New Canal.....		75 00
do 1-31...	Roger Miller, St. Catharines—Patterns used in construction of New Welland Canal lock gate, hanging opening gear as per following:—1 iron thrust plate and core boxes for same, 1 iron shutter valve and core boxes for same, 1 iron bridge standard and core boxes for same, 1 large iron gear for end of crab drum, 1 iron bull wheel gear for crab, 2 iron bevelled pinions for crab, core boxes complete for same, 1 wood frame for crab and core boxes, 1 iron journal box and core boxes, 2 hand turn tables, right and left core boxes for same, 2 hand suspension plates, right and left core boxes for same, 1 suspension plate for screw rod, core boxes for same, 1 water wheel case complete and core boxes, 1 brass water wheel with core boxes, 1 wood water wheel step and core boxes, 1 wood jack roller and core boxes, 1 wood jack roller frame and core boxes....		300 00
do 1-31...	Henry Vanderburgh, Allanburgh— 24 railway fares and return to Port Dalhousie, &c..... do do do St. Catharines.....	16 80 45	17 25
January 1 }	To Walter Chatfield, St. Catharines—		
July 31 }	8 railway fares to Port Dalhousie, at 15 cts.....	1 20	
do 26...	1 do fare to Port Colborne.....	1 50	
do 31...	1 do do Welland.....	1 00	
	Freight and cartage on tools, &c.....	1 50	5 20
1885.	John Shickluna, St. Catharines—		
June 4...	Team and carriage .....	4 00	
July 28...	do do .....	4 00	
Sept. 8...	do do Welland.....	5 00	
1886.			
April 21...	do do .....	5 00	
July 29...	Horse and buggy.....	1 50	19 50
do 1-31...	Robert Foster, St. Catharines—Horse and waggon, with men repairing swing bridge and tightening up rods, &c., 14 days, at \$2.50 .....		35 00
do 21...	Thomas R. Secord, Port Colborne—Allowance for doing harbor master duties at Port Colborne, and for night and Sunday services, while harbor master was away, passing vessels through old aqueduct at Welland, months of May, June and July, at \$20.....		60 00



## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
July 12...	Battle & Smyth, Thorold—20 gals. paint, at \$1.90 .....	.....	38 00
do 1-31...	James Wilson (blacksmithing), Merritton— 406 ft. shafting repaired, at 1½ cts .....	6 09	
	410 screw bolts do at 2½ cts .....	10 25	
	240 rag bolts at 3 cts .....	7 20	
	820 lbs. plates and straps, at 4 cts. ....	32 80	
	678 lbs. screw bolts, at 5 cts .....	33 90	
	22 hrs. smith and helper, at 40 cts .....	8 80	
			99 04
do 1-31...	James Wilson (foundry work), Merritton— 869 ft. castings, at 3½ cts., \$30.42; 10 ft. gearing, at 7 cts., 70 cts .....	31 12	
	Cutting screws and adjusting 110 lbs., at 2½ cts .....	2 75	
	60 lbs. brass nuts, at 30 cts., \$18; 12 stell set screws, at 15 cts., \$1.80 .....	19 80	
	26 hrs. machinists boring and drilling, at 40 cts .....	10 40	
			64 07
do 1-31...	McCleary & McLean, Thorold— 4,141 feet pine, at \$16, \$66.25; 1,600 feet oak, at \$27, \$43.20 .....	109 45	
	11,586 feet oak gate timber, at \$60. ....	695 16	
	7,900 feet oak, at \$25 .....	197 50	
	2,570 do at \$28, \$71.96; 1,437 feet pine, at \$7.50, \$25.15 .....	97 11	
	875 feet pine, at \$35, \$3.62; 15 c. posts, at 20 cts, \$3....	33 62	
	250 feet pine boards, at \$13.50 .....	3 37	
			1,136 21
July 1-31...	To Coy Bros., St. Catharines— 250 lbs. spikes, at 5c., \$12.50; 3 scythes and snaths, at \$1.75, \$5.25 .....	17 75	
	4 doz. screws, 46c.; 10 wet stones, at 10c., \$1; 52 lbs., nails, at 4c., \$2.08 .....	3 54	
	136 lbs. barb wire, at 7c., \$9.52; 10 lbs. fin nails, at 7½c., 75c .....	10 27	
	2 pr. butts, 50c.; 1 paint brush, \$1.50; 3 galls. lard oil, at 75c., \$2.25 .....	4 25	
	3 galls. lard oil, at 80c., \$2.40; 5 galls. boiled oil, at 75c., \$3.75 .....	6 15	
	2 kegs blasting powder, \$8; 400 ft. fuse, \$8 .....	16 00	
	1 pr. platform scales (1,000 lbs.) .....	30 00	
			87 96
July 1-31...	To James Wilson, Thorold— 6 galls. coal oil, at 30c., \$1.80; 2 boxes glass, \$6.50 .....	8 30	
	1 scythe and snath, \$1.90; 3 pr. strap hinges .....	3 57	
	30 lig. glass, at 6c., \$1.80; 3 files, 77c.; 1 gall. knotting, \$3.35 .....	5 92	
	2 paint brushes, \$2.45; 2 door locks, \$1.75 .....	4 20	
	3 pkgs. screws, at 60c., \$1.80; 448 lbs. spikes, at 4½c., \$20.16 .....	21 96	
	28 feet 8-in. leather belting .....	17 64	
	54 do 5 do do at 40c .....	21 60	
	24 lbs. Babbit metal, at 30c., \$7.20; 7 lbs. chain, at 30c., .....	9 30	
			92 49
July 1-31...	To Battle & Smith, Thorold—60 galls. paint, at \$1.90 .....	.....	114 00
July 1-31...	To James Rolston, Dunnville— 4-in. line, 50c.; 10 lbs. spikes, at 4c.; 2 sack brushes....	1 07	
	2 paint brushes, \$1.50; ¼ gall. black varnish .....	2 40	
	2 galls. machine oil, at 75c., \$1.50; 1 rake, 10c.; ½ gall. oil, 40c .....	2 00	
			5 47
July 1-31...	To John Albor, St. Catharines— 99 rolls wall paper, at 12½c. ....	12 38	
	38 do do 10c .....	3 80	
	38 yds. border, at 4c., \$1.52; 99½ yds. border, at 5c., \$4.99 .....	6 51	



ACCOUNTS chargeable to Welland Canal, Renewals and Repairs—*Concluded.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
July 1-31...	To John Albor, St. Catharines—		
	13 yds. border, at 2c., 26c.; 11 yds. border, at 7c., 77c...	1 03	
	20 yds. border, at 3c., 60c.; 50 lbs. paint, at 16c., \$8.....	8 60	
	1 gall. turpentine, 80c.; hanging 107 rolls paper, at 12½c., \$13.38.....	4 18	
	6 days, 1 man, at \$2.50; 2 days, 1 man, at \$2, \$4.....	19 00	
	3 days, 1 man, at \$1.50, \$4.50; painting glass.....	4 50	
	(Above for Lock Tender's houses, Locks 4 and 10.)		70 00
July 1-31...	To James Wilson, blacksmithing, Merriton—		
	117 lbs. rag bolts, repaired, at 1c., \$1.17; 54 lbs. straps, repairs, at 1½c., 81c.....	1 98	
	71 lbs. screw bolts, repaired, at 2½c., \$1.77; 1,134 lbs. straps, at 4c., \$45.39.....	47 13	
	2,920 lbs. screw bolts, at 5c., \$146; 32 lbs. steel, at 20c., \$6.40.....	152 40	
	212 lbs., rag bolts, at 3c., \$6.36; 4 auger shanks 50c.....	8 36	
	51 lbs. steeling picks.....	3 06	
	29 hours time, smith and helper....	11 60	
			224 53
July 1-31...	To McCleary & McLean, Thorold—		
	33,653 feet pine, at \$16.00.....	538 44	
	6,490 do 21.00.....	136 29	
	4,475 do 17.00.....	76 07	
	4,774 do 18.00.....	85 93	
	2,672 do dressed, at \$35.....	93 52	
	588 do at \$17.50.....	10 29	
	936 do plank, at \$13.50.....	12 63	
	9,638 feet oak, at \$25.00.....	240 95	
	8,362 do 27.00.....	225 77	
	5,145 do 28.00.....	144 06	
	1,567 do 29.00.....	45 44	
	5,000 do plank, at \$20.....	100 00	
	5 windows, at \$1, \$5; 7 oak posts. at 25c., \$1.75.....	6 75	
	100 cedar posts, at 20c., \$20; 138 lights for sash, at 6c., \$8.28.....	28 28	
	1,000 feet oak piling.....	150 00	
	2 squares shingles, at \$2.40, \$4.80; 18½ squares shingles, at \$2.30, \$12.16.....	46 96	
	150 feet moulding, at 1½c., \$1.87; 150 feet moulding, at 1c., \$1.50.....	3 37	
	1 window frame and sash, \$3.50; 930 oak piling, at 15c., \$139.50.....	143 00	
			2,087 75
July 1-31...	To James Wilson, foundry work, Merriton—		
	3,284 lbs. castings, at 3c.....	98 52	
	1,912 do 3½c.....	66 92	
	107 brasses at 23c., \$24.61; 6 steel set screws, 90c.....	25 51	
	3 washer wiew valves complete, \$10.....	270 00	
	212 hours, machinist, boring, drilling and fitting, &c., at 40c.....	84 80	
			545 75
July 1-31...	To Richard House, St. Catharines—		
	Repairing oil cans, \$1.55; 1 pump and pipe, \$8.....	9 55	
	7 squares roofing, \$5.50, \$38.50; cleaning out furnace, \$1.....	39 50	
	29 feet roofing cap., at 6c., \$1.74; smokestack, \$3.....	4 74	
	14 sheets tin, at 10c., \$1.40; 9 pieces 2 in. conductor, at 8c., 72c.....	2 12	
	3 elbows, at 10c., 30c.; 7½ feet galv. pipe, at 20c., \$1.50.....	1 80	
	1 cut off, \$1; 3½ lbs. solder, at 30c., \$1.05; 3 charcoal, at 20c., 60c.....	2 65	
	Repairing pails, 65c.; 1 gal. pail, 50c.; 1 doz. washers, 10c.....	1 25	
	75 feet ¾ in. 4-ply hose, at 20c.....	15 00	
	1 pair couplings, at 25c.; 1 nozzle file, 50c.....	0 75	

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**ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.—Continued.**


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Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
July 1-31...	To Richard House, St. Catharines—		
	47 hours, 1 man, at 25c., \$11.75 ; 26 hours, helper, \$3.25.	15 00	
	3½ lbs. wire nails, at 8c.....	28 00	
	4 hours time repairing gas pipe, St. Paul Street Bridge...	1 00	
			93 64
July 1-31...	To Thomas Hastings, St. Catharines—		
	46½ yards cut ashlar masonry, pivot stone and track		
	circle for new swing bridge, Lock 15, at \$10.....	466 66	
	40½ yards backing, at \$5.....	204 25	
	CR.	670 91	
	By 83 yards stone supplied from Government quarry, \$2.....	166 00	
			504 91
			6,412 31

**PAY-List** in duplicate of persons employed on the Welland Canal during the month of August, 1886, to pay Carpenters', Laborers, Team, and account, chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
Repairing harbor piers.....	August....	H. Vanderburgh.....	1 month.	75 00	\$ 75 00 cts.
Preparing for and building fence around Collector's office, Port Dalhousie.....	do ...	G. C. Holmes.....	29½ days...	2 25	66 37
do do ...	do ...	W. M. Jones .....	28 do ...	2 00	56 00
do do ...	do ...	Jas. Henason.....	28 do ...	2 00	56 00
Taking to pieces and rebuilding scow "McKenzie," for Dunn- ville Division works, &c.....	do ...	Wm. Patterson.....	29½ do ...	2 00	59 00
do do ...	do ...	C. Demare .....	26 do ...	2 00	52 00
do do ...	do ...	Alf. Coons .....	28½ do ...	2 00	57 00
do do ...	do ...	Wm. Tinline.....	18½ do ...	2 00	36 50
do do ...	do ...	G. Anderson .....	21 do ...	2 00	42 00
do do ...	do ...	Jno. Shultus, team {	16 do ...	3 50	} 92 00
			12 do ...	3 00	
Watchman, Port Dalhousie.....	do ...	Oscar Sharpe.....	31 do ...	1 25	38 75
do Lock 13.....	do ...	John McMillan ...	31 do ...	1 20	37 20
do do .....	do ...	Henry Hughes.....	31 do ...	1 20	37 20
Painting fence around Collector's office. ....	do ...	Wm. Mossip.....	26½ do ...	2 00	52 50
do do ...	do ...	R. Marshall .....	24 do ...	2 00	48 00
Caulking scow "McKenzie" and general work, &c.....	do ...	John Doig.....	27½ do ...	1 62½	45 10
do do ...	do ...	R. Johnston.....	26 do ...	1 62½	42 25
do do ...	do ...	John House.....	9½ do ...	1 75	16 63
do do ...	do ...	T. Bradley .....	3 do ...	1 50	4 50
do do ...	do ...	F. Galbraith .....	3 do ...	1 50	4 50
Grading down bank, putting in surface ditches and drains, lev- elling off around Collector's office. ....	do ...	Con. Reed, fore- {	12 do ...	1 75	} 48 00
		man.....	13½ do ...	2 00	
do do ...	do ...	John Murrell .....	24 do ...	1 50	36 00
do do ...	do ...	W. Bowman.....	23½ do ...	1 50	35 25
do do ...	do ...	Andrew Secord.....	21½ do ...	1 50	32 25
Cementing cellar floor, store- keeper's house and storehouse, &c. ....	do ...	Jos. Johnson, team. {	12 do ...	3 00	} 81 50
			13 do ...	3 50	
do do ...	do ...	Jno. Hawley {	27 do ...	} 1 25	66 25
		Aug ...	26 do ...		
Taking care of and passing vessel line, &c. Helping to open lock gates and bridge Welland.....	do ...	A. Boyer ... {	27 do ...	} 1 45	76 85
		Aug ...	26 do ...		
do do ...	do ...	Patrick Powers .....	18 do ...	1 50	27 00
Cutting sweet clover and gather- ing up same, hauling to store- house and threshing.....	do ...	Charles Johnson, {	12 do ...	1 75	} 49 00
		foreman.....	14 do ...	2 00	
do do ...	do ...	F. Donahue .....	12 do ...	1 25	} 35 25
			13½ do ...	1 50	
do do ...	do ...	T. Donahue .....	12 do ...	1 25	} 35 25
			13½ do ...	1 50	
Filling up holes and washouts along canal banks, &c.....	do ...	Michael Nestor .....	36 do ...	1 50	39 00
do do ...	do ...	Wm. Pew.....	5 do ...	1 50	7 50
do do ...	do ...	Harvey Pew.....	12½ do ...	1 50	18 37
do do ...	do ...	Martin Nestor .....	5 do ...	1 50	7 50
do do ...	do ...	Robt. Hoover, team..	1 do ...	3 50	3 50
do do ...	do ...	G. Putland, H. & W.	9 do ...	2 00	18 00



PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
Grading up heel path between Port Robinson and Bridge 16.					
Clearing out ditches along stone road and main canal, &c. ....	August....	R. A. Booth, fore- man.....	12 days.... 14 do ...	1 75 2 00	49 00
do do ...	do ...	John Madigan.....	12 do ... 13½ do ...	1 25 1 50	35 25
do do ...	do ...	Geo. Brown.....	12 do ... 13½ do ...	1 25 1 50	35 25
do do ...	do ...	Benj. Redfern .....	12 do ... 13½ do ...	1 25 1 50	35 25
do do ...	do ...	Jas. Hansel.....	12 do ... 13½ do ...	1 25 1 50	35 25
do do ...	do ...	Bart O'Leary .....	1½ do ...	1 50	2 25
do do ...	do ...	Daniel Kelly.....	8 do ...	3 50	28 00
Making coal box.....	do ...	Jacob Wilkerson.....	1 do ...	2 00	2 00
Cleaning out ditches west side of canal, north Welland and east side south Welland.....	do ...	Jas. Clancey.....	12 do ... 14 do ...	1 75 2 00	49 00
do do ...	do ...	do .....	12 do ... 14 do ...	1 25 1 50	36 00
do do ...	do ...	H. Bailey.....	12 do ... 14 do ...	1 25 1 50	36 00
do do ...	do ...	M. Blake.....	12 do ... 14 do ...	1 25 1 50	36 00
do do ...	do ...	G. Nolan.....	12 do ... 14 do ...	1 25 1 50	36 00
do do ...	do ...	T. Waldron.....	12 do ... 14 do ...	1 25 1 50	36 00
Repairing old swing bridge Welland and Air Line ferry.....	do ...	W. Cooke.....	13½ do ...	1 75	49 62
do do ...	do ...	do .....	13 do ...	2 00	
Cleaning out back ditch and turning up and covering same at Port Colborne.....	do ...	J Cooke.....	26 do ...	1 50	39 00
do do ...	do ...	J. Moyer.....	12½ do ...	1 25	36 62
do do ...	do ...	do .....	14 do ...	1 50	
do do ...	do ...	M. Anthes.....	11½ do ...	1 25	35 07
do do ...	do ...	do .....	14 do ...	1 50	
do do ...	do ...	E. Sloat.....	9½ do ...	1 25	32 87
do do ...	do ...	do .....	14 do ...	1 50	
do do ...	do ...	J. Ryan.....	11 do ...	1 25	34 75
do do ...	do ...	do .....	14 do ...	1 50	
Cleaning out back ditches east side of canal, &c., &c.....	do ...	W. Deeks.....	12 do ...	1 25	36 00
do do ...	do ...	do .....	14 do ...	1 50	
do do ...	do ...	C. Keen.....	11½ do ...	1 25	35 37
do do ...	do ...	do .....	14 do ...	1 50	
do do ...	do ...	Sam Cook, team.....	11½ do ...	3 00	79 00
do do ...	do ...	do .....	12½ do ...	3 50	
Repairing lock gates Locks 8, 9, 10 and 11, also bridge Lock 7 and St. Paul St.; fitting up store room, canal office barn, Lock gate machinery patterns; building fence across Hydraulic race, Phelps St., &c.....	do ...	N. Morey.....	27 do ...	2 75	74 25
do do ...	do ...	P. Shortell.....	26½ do ...	2 00	53 50
do do ...	do ...	T. Rapsey.....	27½ do ...	2 00	54 50
do do ...	do ...	S. Radcliffe.....	27 do ...	2 00	54 00
do do ...	do ...	R. Nelson.....	13½ do ...	1 25	38 19
do do ...	do ...	do .....	14 do ...	1 50	
do do ...	do ...	Chas. Hill, team.....	14 do ...	3 50	
do do ...	do ...	do .....	12 do ...	3 00	85 00

## PAY-LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
Watchman gate yard.....	August.....	J. P. Boyle.....	31 days...	1 00	31 00
Painting Lock 4 bridge and repairing floats.....	do ..	Thos. O'Neil.....	12 do ..	1 75	} 49 00
do do	do ..	do ..	14 do ..	2 00	
do do	do ..	Wm. Assell.....	15½ do ..	1 25	
Cleaning out ditches and filling up washouts, and facing banks with clay and stone, little deep cut, &c.....	do ..	Rich. Grant.....	13½ do ..	1 50	20 25
do do	do ..	T. McNamara.....	12 do ..	1 25	} 35 25
do do	do ..	do ..	13½ do ..	1 50	
do do	do ..	Robert Pew.....	12 do ..	1 25	
do do	do ..	do ..	14½ do ..	1 50	36 75
do do	do ..	Wm. Clarke.....	12 do ..	1 25	} 35 25
do do	do ..	do ..	13½ do ..	1 50	
do do	do ..	A. Bradley.....	12 do ..	1 25	
do do	do ..	do ..	13½ do ..	1 50	35 25
Erecting new swing bridge complete at Lock 15 bridge; building boat for repair gang, Division No. 4, &c.....	do ..	F. T. Walton.....	26 do ..	2 75	71 50
do do	do ..	S. R. Bradley.....	26 do ..	2 00	52 00
do do	do ..	E. Smith.....	26 do ..	2 00	52 00
do do	do ..	D. S. Walton.....	12 do ..	2 00	24 00
do do	do ..	Wm. Trapnell.....	26 do ..	2 00	52 00
do do	do ..	W. Dunn.....	14 do ..	2 00	28 00
do do	do ..	F. Shuman.....	26 do ..	1 50	39 00
Quarrying out stone; loading and unloading scow with teams; building stone culvert across ditch, and raising and making up road at Lock 15 bridge approaches.....	do ..	Jas. Hamilton.....	26 do ..	2 00	52 00
do do	do ..	Jas. Reynard.....	26 do ..	1 50	39 00
do do	do ..	A. Bradley.....	22 do ..	1 50	33 00
do do	do ..	Pat. O'Neil.....	26 do ..	1 50	39 00
do do	do ..	Jas. Faywell.....	25½ do ..	1 50	38 25
do do	do ..	J. Laughy.....	26 do ..	1 50	39 00
do do	do ..	Jno. Dundas.....	26 do ..	1 50	39 00
do do	do ..	Ab. Bradley.....	25½ do ..	1 50	38 25
do do	do ..	Wm. Tearney, W. B.....	26 do ..	0 75	19 50
do do	do ..	Jno. Coyle, team.....	25½ do ..	3 50	89 25
Dunnville—Repairing top covering of toll bridge; re-building workshop and putting up addition to same—completed.....	do ..	Jas. Edgar.....	23 do ..	1 50	34 50
do do	do ..	Amos Mann.....	21½ do ..	1 50	32 25
do do	do ..	Jno. Thrush.....	25½ do ..	1 25	31 88
do do	do ..	W. Hutchinson, H. & W.....	23 do ..	1 50	34 50
Painting top timbers toll bridge, also bridges; cleaning off apron below dam; filling up rut holes on tow and heel paths, banks...	do ..	James Gamble.....	23 do ..	1 25	28 75
do do	do ..	Thomas Bessey.....	25½ do ..	1 25	31 88
do do	do ..	Ira Bessey.....	25½ do ..	1 25	31 88
do do	do ..	M. A. Smith, team.....	8 do ..	3 00	24 00
Washing, repair scow bedding, &c.	do ..	Mrs. J. Whipple.....	2 do ..	1 00	2 00
					3,947 27



## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Aug. 1-31...	To Coy Bros., St. Catharines— 9 kegs spikes, at \$5, \$45; 1 doz. galvanized pails, \$12... 25 lbs do at 4c., \$1; 1 door spring, 25c.; 1 padlock, 20c..... 100 coach screws, \$7.50; 1 gross screws, 55c..... 5 galls. lard oil, at \$1, \$5; 1 gall. castor oil, \$1.25..... 1 scoop shovel, \$1.25; 6 bales oakum, at \$5, \$30..... 300 deck plugs, 90c.; 6 M.S. files, at 25c., \$1 50..... 6 prs. T. hinges, \$1.40; 1 pr. B. D. hinges, 70c..... 36 car bolts, \$1.09; 1 grindstone, \$1.42..... 1 keg cut nails, \$3.50; 12 lights glass, 75c..... 2 staples, 36c.; 1 gate hinge, 50c.; 1 latch, 40c..... 200 lbs. white lead, at 7½c., \$15; 2 galls turpentine, \$1 50..... 2 P. H. augers, \$8; 2 rim locks, 90c..... 55 lbs. R. steel, at 12c., \$6.60; 26 lbs. band iron, at 4c., \$1.04..... 1 paint brush, 45c.; 50 thimbles, at 25c., \$12.50.....	57 00 1 45 8 05 6 25 31 25 2 40 2 10 2 51 4 25 1 26 16 50 8 90 7 64 12 95	156 57
July 17...	A. Muir & Bros., Port Dalhousie— 20 lbs. spikes, at 5c., \$1; 1 16 ft. oar, \$1.60..... ½ barrel water line..... 12 sheets sand paper.....	2 60 0 87 0 20	3 67
Aug. 1-31...	John Mathews, Port Colborne— 128 lbs. Run. manilla rope, at 12½c..... Paid freight on castings, &c..... 1 lb. glue, 40c.; 1 paint brush, 30c.; ½ doz. sheets sand paper, 10c..... 2 locks, 40c.; 3 prs. bolts and screws, 10c..... 2 hooks and eyes.....	16 00 0 30 0 80 0 55 0 08	17 73
do 17...	B. Greening & Co., Hamilton, 2,000 feet ½ in. galvanized wire rope, at 20c.....		400 00
do 1-31...	Chatfield & Neelon, St. Catharines— 2 globe holders, 20c.; 5 bell cranks, 75c..... 2 lbs. spring wire, 60c.; 1 pr. cutting plyers, \$1..... 3 bell cranks, 30c.; 1 lb. spring nails, 25c.; staples, 35c. ½ lb. copper wire, 15c.; 3½ lbs. sheet brass, 38c.; 3 caps, 18c..... 7 ft. ½ in. pipe, 35c.; 5 elbows, 25c.; 1 fount, 40c..... 1½ lbs. plumbago, 60c.; ¼ lb. asbestos packing, 38c..... 10 pump leathers, \$1, 5 ft. pipe, 25c.; 5 elbows, 25c..... 1 pr. hose plyers, \$1; 2 doz. clips, 90c..... 1 washer, 10c.; 6 hose clips, 35c.....	0 95 1 60 0 90 0 71 1 00 0 98 1 50 1 90 0 45	9 99 52 25
do 31...	Gordon Mackay, Toronto—550 lbs. white Cape waste, 9½c To P. McMurray, Welland—		
Nov. 3-19...	Repairing lamps.....	2 25	
Dec. 10...	2 new glass in lamps, 50c.....	1 00	
1886.			
Aug. 1-31...	4 do do..... Repainting 3 lamps, \$1.35; 2 new lanterns at 75c., \$1.50. 1 stove and pipe, \$4.75; repairing lantern, &c., 50c..... Lines.....	2 00 2 85 5 25 0 50	13 85
June 19...	Saul Burrows, Port Colborne— Repairing lamp, 40c.; 10 feet gutter, \$1.50; 16 pieces flashing, 2c.....	2 10	
July 6...	Repairing gutter, 60c.; thimble, 10c.; repairing pump, \$1.00..... 27 feet 3 in. conducting pipe, \$2.70; repairing trough, 50c.....	60 3 20	
Aug. 25...	1 coal stove and pipe for ferry.....	5 65	12 65



# ACCOUNTS chargeable to Old Welland Canal, Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Aug. 31...	John Battle, Thorold, 20 barrels cement.....		30 00
do 1-31...	Robert Foster, St. Catharines— Horse and buggy, 4 days, superintendent on repairs, at \$1.50.....	6 00	
	Horse and buggy, 1 day, superintendent on repairs. ....	2 50	
	Horse and waggon, with men, repairing and tightening rods of swing bridges, 7 days, \$2.50.....	17 50	26 00
do 1-31...	James Wilson, Merriton (Iron Work and Blacksmithing)— 976 lbs. s.bolts, at 5c., \$48.80; 363 lbs. bands, at 4c., \$14.52 12 lbs. steeling, at 6c., 72c.; 601 lbs. s. bolts, repairing, at 3c., \$18.03.....	63 32	
	800 lbs iron work, repairing, at 2½c., \$20; 688 lbs. iron work, at 1½c., \$10.32.....	18 75	
	9½ lbs. steel, at 20c., \$1.90; 130 lbs. rag bolts, repairing, at 1c., \$1.30.....	30 32	
	49 hours time, Smith and helper, at 40c.....	3 20	
do 1-31...	Foundry Work. 1,224 inches castings, at 3½c., \$42.84; 683 inches water wheel gearing, at 1c.....	19 60	
	15 steel s. screws, at 15c., \$2.25; 86 hours, drilling and fitting, at 40c., \$34.40.....	90 65	262 49
July 23 } Aug. 31 }	Chas. Loesch, Welland, 28 meals for machinist repairing bridge at Welland, away from home, at 25c.....	36 65	7 00
Aug. 1-31...	H. Vanderburgh, Allanburgh— 23 fares for Port Dalhousie and return, at 70c.....	16 10	
	2 do St. Catharines do 45c.....	0 90	17 00
July 8...	R. D. Dunn, sundry account, St. Catharines— Paid freight 3 barrels cement from Toronto.....	1 50	
Aug. 14...	do cotton for cleaning office.....	0 46	
do 31...	do freight 4 coils wire cable, Hamilton.....	2 74	4 70
do 1-31...	To R. H. Smith & Co., St. Catharines— Hanging, setting and filing 4 cross-cut saws, at \$1.50... Hanging, setting and filing 1 saw.....	6 00 0 75	6 75
do 1-31...	John Albon, St. Catharines— 42 rolls wall paper, at 12½c.....	5 25	
	Hanging 30 rolls paper.....	3 75	
	21 yds. border, at 8c., \$1.68, 71 yds. border, at 4c., \$2.84. Staining and polishing counters, collector's office, Port Dalhousie.....	4 52	
do 1-31...	McCleary & McLean, Thorold— 1,144 feet oak at \$25.00.....	3 00	16 52
	4,330 feet pine 17.00.....	28 60	
	3,809 do 16.00.....	73 61	
	300 do 17.50.....	60 94	
	100 do 35.00.....	5 25	
	1,200 do 30.00.....	3 50	
	170 feet furn mould.....	36 00	
	218 do.....	1 70	
	3 sashes at 35c.....	3 27	
		1 05	213 92
	Old Welland Canal and Feeder.		
do 1-31...	Coy Bros., St. Catharines— 3 gross screws, \$1.10; 4 doz. car bolts, \$1.15.....	2 25	
	22 lbs. steel wire rope.....	5 06	
	2 pair hinges, 80c.; 1 dead lock 50c.; 1 paint brush, \$1.45	2 75	
	2 galls. lard oil, \$2; 1 grindstone complete, \$3.75.....	5 75	
	1 bale oakum, \$5; 3 galls. boiled oil at, 80c., \$2.40.....	7 40	
	½ gall. turpentine, 40c.; 1 keg nails, \$3.50.....	3 90	
	115 lbs chain, at 5c., \$5.75; 2 flat brushes, \$2.25.....	8 00	35 11

## ACCOUNTS chargeable to Welland Canal—Renewals and Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Aug. 1-31...	To James Wilson, Thorold—		
	307 lbs. manilla rope, at 15c.....	46 05	
	6 galls. coal oil, at 25c., \$1.50; 4 galls. boiled oil, at \$1, \$4.....	5 50	
	Lace leather, \$1.05; 1 broom, 25c.; 1 bridge broom, 25c..	2 05	
	25 lbs. wrought nails, at 10c., \$2.50; 1 bale oakum, \$5;		
	1 lock, 75c.....	8 25	
	14 pair strap hinges, at 20c., \$2.80; 29 lbs washers, at 5c., \$1.45.....	4 25	
	224 lbs. spike, at 4½c., \$10.08; 14 light glass, 12c., \$1.68.	11 76	
	33 lbs. vermilion red, at 25c., \$8.25; 3 pair bolts, at 45c., \$1.35.....	9 60	
	1 grub hoe.....	2 00	
do 1-31...	Battle & Smith, Thorold—15 galls. paint.....		89 46
do 1-31...	James Rolston, Dunnville—		28 50
	1 gall. black Japan, \$1.50; ½ gall. turpentine, 50c.....	2 00	
	2 paint brushes, \$2.15; 16½ lbs. line, \$2.06.....	4 21	
	47 lbs. putty, at 4c., \$1.88; 6 lbs. nails, 30c.; 2 locks, 60c.	2 78	
	3 gate hooks, 15c.; 2 lanterns, \$1.50.....	1 65	
	25 lbs. nails, at 4c.....	1 00	
April 21...	C. A. Mitchell, St. Catharines—7 bbls. water lime, at \$1.65.....		11 64
Aug. 30...	R. G. Murdy, Dunnville—20 yds. gravel, at 60c.....		11 55
	Chas. Henderson, Marshville—		12 00
Apl. 28-30...	9 meals } For men away from home clearing out the		
May 12-18...	28 do } culverts, &c., above feeder, at 25c.....		
June 1-30...	53 do }		22 50
Aug. 1-31...	McCleary & McLean, Thorold—		
	839 ft. pine, at \$17.00 per M.....	14 26	
	2,773 do do 16.00 do.....	44 37	
	4,369 ft. oak, at 25.00 do.....	109 22	
	1,263 do do 28.00 do.....	35 36	
	792 do do 27.00 do.....	21 38	
	205 ft. pine, at 30.00 do.....	6 15	
	248 do do 17.50 do.....	4 34	
	117 do do 35.00 do.....	4 00	
	1,472 do do 16.50 do.....	24 28	
	2,440 do do 13.50 do.....	32 94	
	162 do do 20.00 do.....	3 24	
	1,048 do do 18.00 do.....	18 86	
	4 sash, at 35c., \$1.40; 20 fence posts, at 25c., \$5.....	6 40	
	287 ft. oak piling, 15c.....	43 05	
	James Wilson, Merritton—		367 95
	(Iron work and blacksmithing.)		
do 1-31...	1,754 lbs. iron work repairing, at 1½c., \$26.31; 479 lbs. iron work repairing, at 2½c., \$11.88.....	38 19	
	175 rag bolts, at 3c., \$5.25; 592 lbs. straps, at 4c., \$23.68; 16 lbs. sheeting, at 6c., 96c.....	29 89	
	1,611 T. bolts, at 5c., \$80.55; repairing 2 augers, 50c.; 1 new axle, \$2.....	83 05	
	25 hours, smith and helper, at 40c.....	10 00	
do 1-31...	(Foundry work.)		
	1,715 lbs. castings, at 1½c., \$25.75; 73,200 lbs. castings, at 2½c., \$183.....	208 73	
	405 lbs. castings, at 3c., \$12.15; 474 lbs. castings, at 3½c., \$16.59.....	28 74	
	20 lbs. steel, at 8c., \$1.60; 8 lbs. brass, at 23, \$1.84; 33 lbs. brass, at 30c., \$9.90.....	13 34	
	244 hours machinery work, drilling, turning, &c., at 40c..	97 60	
			509 54
	Total.....		2,339 18



**NUMBER of Pay-list, 148.** Pay-list in duplicate of persons employed on the Welland Canal, during the month of September, 1886, to pay Carpenters, Laborers, Teams, &c., chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
	Sept., 1886	H. Vanderburgh.....	1 month...	75 00	75 00
Re-building scow "McKenzie" for Dunnville feeder works.	do	G. C. Holmes.....	22½ days...	2 25	50 62
Building coal shed and w.c. rear of collector's new office.	do	W. M. Jones.....	25½ do ...	2 00	51 00
Repairing harbor piers and bridges at various parts of canal, making tank for overseer's house and working at spare gates.	do	Jas. Hindson.....	14½ do ...	2 00	29 00
	do	W. Patterson.....	24½ do ...	2 00	49 50
	do	C. Demare.....	26 do ...	2 00	52 00
	do	Alf. Coons.....	23 do ...	2 00	46 00
	do	W. Tinlim.....	7½ do ...	2 00	15 00
	do	G. Anderson.....	10½ do ...	2 00	21 00
	do	Jno. Shultes.....	26½ do ...	3 50	92 75
Watchman, yard and shop, Port Dalhousie.....	do	Oscar Sharp.....	30 do ...	1 25	37 50
Whman, yard and shop, Lock 13..	do	Hy. Hughes.....	30 do ...	1 20	36 00
do do	do	Jno. McMillan.....	30 do ...	1 20	36 00
	do	Wm. Mossip.....	18½ do ...	2 00	36 50
Painting bridges and waste weirs, &c., caulking repair scow and new pontoon.	do	R. Marshall.....	19 do ...	2 00	38 00
	do	Jno. House.....	9½ do ...	1 75	17 06
	do	Jno. Bowman.....	8 do ...	2 00	16 00
	do	J. Abbey.....	3 do ...	2 00	6 00
	do	Jacob Dell.....	2 do ...	2 00	4 00
Helping carpenters, &c.....	do	John Doig.....	26½ do ...	1 62½	43 06
do	do	Robt. Johnston.....	30 do ...	1 62½	48 75
do	do	R. Ellgraff.....	5 do ...	1 50	7 50
Threshing out sweet clover seed for sowing banks. Filling up holes along canal banks and re-building drains and clearing mud out of Higgins' culvert, &c.	do	Chas. Johnson.....	20 do ...	2 00	40 00
	do	Thos. Donahue.....	25 do ...	1 50	37 50
	do	F. Donahue.....	24 do ...	1 50	36 00
	do	Wm. Jones.....	16 do ...	1 50	24 00
	do	Michael Nestor.....	4 do ...	1 50	6 00
	do	Wm. Clarke.....	2 do ...	1 50	3 00
	do	Geo. Putland, h. & w.....	2½ do ...	2 00	4 50
	do	R. G. Hoover, team...	4 do ...	3 50	14 00
Filling up behind stone facing of banks, opening up and cleaning out bad ditches.	do	R. A. Booth.....	26 do ...	2 00	52 00
Putting snubbing post and stone foundation under stone house, Division No. 3.	do	Jno. Madigan.....	25½ do ...	1 50	38 25
Opening up and cleaning out back ditches, &c.....	do	Geo. Brown.....	25½ do ...	1 50	38 25
do do	do	Ben. Redfern.....	22 do ...	1 50	33 00
do do	do	Jas. Hansel.....	24½ do ...	1 50	36 75
do do	do	Daniel Kelley, team...	9 do ...	3 50	31 50
do do	do	Jas. Clancy.....	26 do ...	2 00	52 00
do do	do	Hugh Bailey.....	26 do ...	1 50	39 00
do do	do	Michael Blake.....	24 do ...	1 50	36 00
do do	do	Thos. Waldron.....	14 do ...	1 50	21 00
do do	do	Geo. Nolan.....	26 do ...	1 50	39 00
do do	do	Wm. Pew.....	1 do ...	1 50	1 50
Opening up and cleaning out ditches; facing banks of harbor east side with stone; building fence in front of lock-master's house, &c.	do	Wm. Cook.....	26 do ...	2 00	52 00
	do	J. Cook.....	26 do ...	1 50	39 00
	do	Wm. Deeks.....	26 do ...	1 50	39 00
	do	J. Moyer.....	26 do ...	1 50	39 00
	do	C. Keen.....	26 do ...	1 50	39 00
	do	E. Sloat.....	26 do ...	1 50	39 00
	do	M. Anthes.....	26 do ...	1 50	39 00
	do	J. Ryan.....	26 do ...	1 50	39 00
	do	Sam. Cook, team.....	9 do ...	3 50	31 50
Taking care of and passing vessels, &c.	do	John Hauley.....	26 do ...	1 25	32 50
Helping to swing old bridge—Welland.	do	A. Boyer.....	26 do ...	1 45	37 70
	do	P. Powers.....	26 do ...	1 50	39 00



NUMBER of Pay List, 148. — Pay-list in duplicate of persons employed, &c. — *Continued.*

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts
Building new lock gate; picking up high left gate and placing same in pond; put 2 lock gates in lock 7; moving lock house from lock 6 to 5; hauling out timber and piling same for bridges below lock 2; repairing lock, 3 gates, &c.	September	N. Morey.....	26 days....	2 75	71 50
	do	T. Rapsey.....	26 do ...	2 00	52 00
	do	P. Shortell.....	26 do ...	2 00	52 00
	do	S. Radcliffe.....	26 do ...	2 00	52 00
	do	R. Wilson.....	26 do ...	1 50	39 00
	do	Chas. Hill, team.....	26 do ...	3 50	91 00
	do	J. W. Boyle.....	30 do ...	1 00	30 00
	do	Thos. O'Neil.....	26 do ...	2 00	52 00
	do	Wm. Assill.....	15 do ...	1 25	18 75
	do	Richard Grant.....	8½ do ...	1 50	12 75
Painting lock, 4 bridge, and floats and approaches, cleaning out Beaver dam, creek, &c.	do	T. M. Vannard.....	26 do ...	1 50	39 00
	do	Robert Pews.....	26 do ...	1 50	39 00
	do	Wm. Clarke.....	26 do ...	1 50	39 00
	do	Arthur Bradley.....	25½ do ...	1 50	38 25
	do	A. W. Bradley.....	25½ do ...	1 50	1 50
Building boats and punts for same for repairs gang; carrying stone, timber and tools; building bridge over ditch; re-arranging and laying sidewalk along bridge; building derrick and general repairs.	do	F. T. Walton.....	26 do ...	2 75	71 50
	do	S. M. Beadley.....	26 do ....	2 00	52 00
	do	E. Smith.....	25 do ....	2 00	50 00
	do	W. Trapnell.....	26 do ....	2 00	52 00
	do	F. Shuman.....	26 do ....	1 50	39 00
	do	F. T. Walton.....	3 do ....	1 50	4 50
	do	James Hamilton.....	26 do ....	2 00	52 00
	do	Jas. Reynard.....	26 do ....	1 50	39 00
	do	Arth. Bradley.....	24 do ....	1 50	36 00
	do	Patte. O'Neil.....	26 do ....	1 50	39 00
Quarrying out stone; loading and unloading stone and clay for general repairs.	do	Jas. Faywell.....	26 do ....	1 50	39 00
	do	J. Laughey.....	26 do ....	1 50	39 00
	do	Jno. Dundas.....	20 do ....	1 50	30 00
	do	Abe Bradley.....	26 do ....	1 50	39 00
	do	C. W. Bradley.....	1 do ....	1 50	1 50
	do	Wm. Teamer.....	26 do ....	75	19 50
	do	Jno. Coyle, team.....	26 do ....	3 50	91 00
Repairing planks on long bridge over Grand River and stationary bridges; repairing apron below dam and floodgate; building and putting in sluice way through feeder banks at Hutcheson Road.	do	Jas. Edgar.....	25 do ....	1 50	37 50
	do	H. Sheehan.....	24 do ....	1 50	36 00
	do	A. Mann.....	3 do ....	1 50	4 50
	do	R. Mitchell.....	3 do ....	1 50	4 50
	do	Ira Bessey.....	13½ do ....	1 25	16 56
	do	Wm. Hutchinson, h. & wg.....	24 do ....	1 50	36 00
	do	John Thrush.....	25 do ....	1 25	31 25
	do	Jas. Pamble.....	23 do ....	1 25	28 75
	do	Thos. Bessey.....	19 do ....	1 25	23 75
	do	E. Webber.....	3 do ....	1 25	3 75
Painting office.....	do	M. A. Smith, team....	7½ do ....	3 00	22 50
	do	T. C. Tipton.....	5 do ....	1 50	7 50
					<b>\$3,431 50</b>

## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.

Date.	Nature of Works.	Amount.	Total.
1886.			
Sept. 1-30...	To Coy Bros., St. Catharines—	\$ cts.	\$ cts.
	450 lbs. spikes, at 5c., \$22.50; 5 galls. turpentine, at 75c., \$5.75.....	26 25	
	45½ galls. lardine oil, at 65c.....	29 58	
	50 lbs. white lead, at 7½c., \$3.75; 14 galls. mixed paint, at \$2, \$28 .....	31 75	
	25 lbs. oxide iron, at 5c., \$1.25; 10 lbs. yellow ochre, 50c.....	1 75	
	4 paint brushes, \$3 60; 4 bales oakum, at \$5, \$20.....	23 60	
	50 galls. boiled oil, at 75c., \$37.50; 1 keg nails, \$3.50....	41 00	
	400 lbs. Venetian red, at 6c., \$24; 5 galls. lard oil, at \$1, \$5.....	29 00	
	45½ galls. raw oil, at 70c.....	31 85	
	6 prs. bolts, 75.; 2 gross screws, 55c.....	1 30	
			216 08
do 1-30...	Henry Mussen, Allanburgh—		
	3½ galls. lard oil, at \$1, \$3.50; 1 lamp, 75c.....	4 25	
	Repairing clock, \$1; 10 lbs. red lead, \$1 .....	2 00	
	12 lbs. oatmeal, 50c.; 8 galls. coal oil, at 30c., \$2.40.....	2 90	
	3 boxes axle grease, 45c.; 2 brooms, 60c.....	1 05	
	4 lamp chimneys.....	0 40	
			10 60
do 1-30...	James Thompson, Thorold, 1 water can, \$1; repairing oiler and lamp, 50c.....		1 50
do 1-30...	John Mathews, Port Colborne—		
	¼ gall. raw oil, 39c.; putty, 5c.; ¼ gall. varnish, 65c.....	1 08	
	2 locks, 70c.; 10 bush. lime, at 25c., \$2.50; 2 locks, \$2....	5 20	
	100 lbs. spikes, \$5; 10 lights glass, 76c.; 2 prs. hinges, 25c	6 01	
	1 pail, 25c.; 5 lbs. Venetian red, 25c.; 6 prs. hinges, at 10c., 60c.; 3 sticks chalk, 8c.....	1 18	
	1 gross screws, 42c.; 4 lbs. finish nails, 32c.....	0 74	
			14 21
do 1-30...	Samuel Burrows, Port Colborne—		
	1 cup, 20c.; 1 lamp for waste weir, \$4.....	4 20	
	1 stove for scow, \$5; 3 ft. pipe, 45c.; 1 damper, 25c.....	5 70	
	16 lbs. zinc, at 10c.....	1 60	
	Time fusing on line, &c.....	0 50	
			12 00
do 10...	John Battle, Thorold—6 brls. cement, at \$1.50 .....		9 00
May 1...	Nelson Haight, St. Catharines—1,000 hard brick.....		8 00
June 7...	R. Stephenson, St. Catharines—1 pump for Government Store House .....		8 75
Sept. 17-18...	W. A. Bonaberg, Port Colborne—2 days repairing lock tender's house, at \$2.75.. ..		5 50
do 1-15...	Robert Foster, St. Catharines—		
	Horse and buggy 3 days, for superintendent, at \$1.50.....	4 50	
	Horse and buggy 6 days, for machinist repairing bridges, &c., at 2.50.....	15 00	
			19 50
do 1-30...	Henry Vanderburgh, Allanburgh—		
	23 railway fares, Port Dalhousie and returning, at 70c... 2 do St. Catharines do 45c...	16 10 0 90	
			17 00
do 1-30...	W. Chatfield, St. Catharines—		
	2 railway fares, Port Colborne and returning, at \$1 50 ... 1 do Welland do .....	3 00 1 00	
	Paid freight and cartage on tools....	0 75	
	Street car fares for month.....	0 45	
			5 20
do 1-30...	Chas. A. White, Stone Bridge—8 meals and lodging for men from St. Catharines, machinists, repairing Bridge No. 21, at 25c.....		2 00
do 1-30...	James Wilson, Merritton—		
	Foundry Work—		
	1,185 lbs. castings, at 3½c., \$41.48; 12 set-screws, at 15c., \$1.80.....	43 28	



## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Sept. 1-30...	To James Wilson, Merriton— Foundry Work— 489 lbs. waste weir gearing, at 7c., \$34.23; 10 in. chisels, \$2.....	36 23	
	30 lbs. brass, at 20c., \$6; 133 hrs. time, machine work, at 40c., \$53.20.....	59 20	
	Blacksmithing, &c.— 79 lbs. rag bolts rep., 79c.; 178 lbs. straps rep., at 1½c., \$2.67.....	3 46	
	146 lbs. screw bolts rep., 2½c., \$3.65; 41 lbs. rag bolts, at 3c., \$1.23.....	4 88	
	52 lbs. straps, at 4c., \$2.08; 7 lbs. bar steel, at 6c., 42c.	2 50	
	352 lbs. screw bolts and shackles.....	17 60	167 15
	R. D. Dunn, St. Catharines, Sundry Account— Paid express charges on 3 cases from Ottawa.....	11 70	
do 15...	do 1 do .....	5 20	
do 20...	do 3 do .....	3 15	
do 23...	Above was stationary from the Department at Ottawa.		20 05
do 30...	To Roger Miller, Port Dalhousie— Taking down floors, partitions, stairs and doors of overseer's house, Port Dalhousie, removing mud and decayed flooring, laying in 160 feet drain from same to harbor, concreting floor, building cellar, renewing floors, partitions, stairs, doors, &c., throughout, rearranging windows and door openings, putting in new sash and doors, taking down old stone chimney and building new brick one, repairing outside blinds, plastering, painting, &c., papering, as per agreement..	500 00	
	Taking out decayed floor of adjoining lockmaster's house and mud under concreting and relaying new floor, laying 160 feet drain from same to harbor, taking off old and putting on new plastering and ceiling, making new window openings and putting in new sash frames and blinds, taking out other decayed sashes and fitting with new, painting and papering where required as per agreement....	135 00	
	Taking out floor, partition, stairs, doors of old collector's office and converting into additional dwelling accommodation for overseer, removing vault and brick division wall and rebuilding in proper position, making new window opening and fitting with new sash and blinds, renewing other old sashes, fitting storm sash, repairing blinds, removing old chimney, building new one and plastering, painting and papering throughout as per agreement.....	400 00	
	Painting outside overseer's house and 12 pairs blinds....	45 00	
	Painting outside lockmaster's house and 11 pairs blinds..	45 00	
	Painting outside collector's office and 8 pairs blinds.....	30 00	
	160 feet eave-trough and continuation pipe, at 15c.....	20 00	
	342 feet gas pipe for railing around old pontoon, at 9c...	30 78	
	24 elbows and tees for same.....	3 60	178 38
	Old Welland and Freder Canal.		
do 1-30...	Coy Brothers, St. Catharines— 3 pairs hinges, \$1.15; 2 gross screws, 85c.....	2 00	
	450 lbs. spikes, at 5c., \$22.50; 2 paint brushes, \$3.....	25 50	
	8 gals. black oil, at 40c., \$3.20; 6 gals. lard oil, at \$1, \$6.....	9 20	
	1 doz. hooks, 25c.; 1 pair pincers, 50c.; 1 hand saw \$3..	2 75	
	1 hammer, 75c.; 1 gimlet, 10c.; 3 gals. black oil, \$1.20.....	2 05	
	1 box matches, 20c.; 2 gals. machine oil, at 75c., \$1.50.....	1 70	43 20



## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs—Continued.

Date.	Nature of Work,	Amount.	Total.
		\$ cts.	\$ cts.
Sept. 1-30...	James Wilson, Thorold—		
	40 feet rope, at 12½c., \$5; 38 feet heavy line, at 15c., \$5.70.....	10 70	
	46 lbs. tallow, at 12½c., \$5.75; 9 gals. black oil, at \$1, \$9.....	14 75	
	3 gals. turpentine, at 75c., \$2.25; 1 broom, 30c.; 2 locks, \$1.....	3 55	
	50 lbs. heavy line, at 15c.....	7 50	
	2 bales oakum, at \$5, \$10; 12 lights glass, 96c.....	10 96	
	69 lbs. putty, at 5c., \$3.45; 3 packages screws, \$1.25; 350 spikes, at 6c., \$21.....	25 70	
	56 lbs Venetian red, at 8c., \$4.48; 9 gals. coal oil, at 25c., \$2.25.....	6 73	
	45 lbs. Manilla rope, at 12½c., \$5.63; 3 lbs. finishing nails, 18c.....	5 81	
	2 gals. drop black, at 40c., 80c.; 5 lbs. paint, at 25c., \$1.25.....	2 05	
	1 lantern globe, 35c.; pair locks, 50c.; 3 packages screws, \$1.25.....	2 10	
	2 circular saws, \$12; 35 feet leather belting, at 40c., \$14.....	26 00	
	15 feet leather belting, at 35c., \$5.25; 400 lbs. spikes, at 5 c., \$20.....	25 00	
	4½ gals. lard oil.....	4 50	
			145 60
do 1-30...	Battle & Smith, Thorold—		
	40 gals. mixed paint, at \$1.90.....		76 00
Sept. 1-30...	James Thompson, Thorold—		
	3 galv. pumps for Government scow, at \$3.....	9 00	
	2 ventilators, \$1.75, \$3.50; 1 stove for scow, \$8.....	11 50	
	1 stove for telephone house.....	4 00	
	8½ lengths pipe, 15c., \$1.27; 14 bush. lime, 10c., \$1.40; 1 damper, 25c.....	2 92	
	30 lbs. galv. smoke stack.....	7 00	
	1 pail, 40c.; 1 elbow, 20c.....	0 60	
			35 02
Sept. 1-30...	Condon & Hall, Dunnville—		
	75 lbs. white lead, 7c.; 2 crow bars, \$3.30; 1 file, 15c... 8 70		
	43½ galls. linseed oil, \$29.89; 122 in. felt paper, at 4c., \$4.84.....	34 73	
	3 in. clout nails, 55c.; 16 galls. tar, \$3.20; 1 wood saw, \$1.....	4 75	
	¼ gallon turpentine.....	0 40	
Sept. 1-30...	James Ralston, Dunnville—		
	3 spades, \$3; 1 whet stone, 5c.; 1 bucket, 50c.....	3 55	
	14 lbs. nails, 5c., 70c.; 1 pick axe handle, 30c.; 1 bar grease, 13c.....	1 13	
	1 keg spike, \$2.75; 25 nails, 4c., \$1; 1 gallon machine oil, 80c.....	4 55	
	4 galls. boiled oil, 80c., \$3.20; 11 hinges, 55c.; 12 bolts, 36c.....	4 11	
	Hooks and staples, 43c.; 31 lbs. putty, 5c., \$1.55; ½ gallon Japan, 94c.....	2 92	
	½ gallon paint, 75c.; 1 brush, 8c.; 6 files, 60c.....	1 43	
	1 qrt. paint, 40c.; 1 qrt. Japan, 38c.; 1 hasp, 13c.....	0 91	
Sept. 1-30...	Thomas Grenville, Thorold—		
	1 bridge sign.....	4 00	
	6 tool boat sign, at \$1.75.....	10 50	
	2 small signs, 87½c.....	1 75	
Sept. 1-30...	McCleary & McLean, Thorold—		
	8,812 feet pine, \$13.50, \$118.96; 15,749 feet pine, at \$16, \$251.98.....	370 94	
	800 feet pine, at \$16.50, \$13.20; 5,252 feet pine, at \$17, \$89.28.....	102 48	
	2,949 feet pine, at \$18, \$53.08; 538 feet oak, at \$20, \$10.76.....	63 84	

## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
Sept., 1-30...	To McCleary & McLean, Thorold— 1,775 feet pine, at \$25, \$44.37; 500 feet oak, at \$22, \$11.00.....	55 37	
	117 feet pine, at \$30, \$3.51; 2,640 feet oak, at \$27, \$71.28.....	74 79	
	366 feet pine, at \$35, \$12.81; 156 feet oak, at \$28, \$4.37.....	17 18	
Sept. 1-30...	4 sashes, 35c., \$1.40; 33 bunches shingles, 80c., \$26.40... James Wilson, Merritton— Blacksmithing— 45 lbs. steeling, 6c., \$2.70; 32 lbs. cast steel, at 20c., \$6.40.....	27 80	712 40
	13 spokes, 25c., \$3.25; 922 lbs. 5 in. bolts, at 5c., \$46 10.....	9 10	
	742 lbs. straps, at 4c., \$29.68; 18 lbs. rag bolts, at 3c., 54c.....	49 35	
	451 lbs. bolts repaired, at 2½c., \$11.28; 57 lbs. iron repaired, at 1½c., 86c.....	30 22	
	Foundry Work— 623 lbs. castings, at 3½c.....	12 14	
	115 hours time, machinist and machinery, drilling, fitting, &c., at 40c.....	21 80	
Sept. 1-30...	Thomas Hastings, St. Catharines— 11½ days, mason, at \$3, \$35.25; 8½ days labor, at \$1.50, \$12.75.....	46 00	168 61
	3½ days, horse and wagon, at \$1.50.....	5 25	
	4 brls. cement, at \$6; 7 brls. lath, at 25c., \$1.75.....	7 75	
	1 ceiling stone, 13 inches, at 15c. per inch.....	1 95	
	14 brls. mortar.....	14 00	
	17 lbs. lath nails, 75c.; 50 bricks, 50c.....	1 25	
	95 lbs. plaster.....	0 95	
	Total.....	79 15	3,073 33

PAY-LIST in duplicate of Persons employed on the Welland Canal, during the month of October, 1886, to pay for repairing piers at Port Colborne, chargeable to Special Account.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
Repairing and reinstating, partially, injury done to the water pier Port Colborne Harbor until more extensive restorations can be made next spring .....	October ...	Wm. Cook.....	6 days....	2 00	12 00
do do	do	Jas. Ryan.....	6 do ...	1 50	9 00
do do	do	H. Brennan.....	6 do ...	1 50	9 00
do do	do	Thos. Pringle.....	2½ do ...	1 50	3 38
do do	do	C. McCain.....	3 do ...	1 50	4 50
do do	do	Wm. M. Cracken.....	2 do ...	1 50	3 00
do do	do	Jno. Harbison.....	2½ do ...	1 50	4 13
do do	do	Con. Ryan.....	2 do ...	1 50	3 00
do do	do	Jas. Kingston.....	1½ do ...	1 50	2 63
do do	do	M. Mahigan.....	1½ do ...	1 50	2 63
do do	do	Robt. Chalmer.....	2 do ...	1 50	3 00
do do	do	James Britton.....	2 do ...	1 50	3 00
do do	do	Wm. Ramey.....	¾ do ...	1 50	1 13
					60 40



**PAY-LIST** in duplicate of Persons employed on the Welland Canal during the month of October, 1886, to pay carpenters, laborers, teams, &c., chargeable to renewals and repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts	\$ cts.
Repairing bridges, harbors, piers, Lock 3 binder, floats and scow "Gordon," &c.....	October ...	H. Vanderburgh.....	1 month..	75 00	75 00
do do	do ...	G. C. Holmes .....	3½ days...	2 25	7 87
do do	do ...	Wm. Patterson.....	25½ do ...	2 00	51 00
do do	do ...	C. Demare .....	25 do ...	2 00	50 00
do do	do ...	Wm. Mossip.....	25½ do ...	2 00	51 00
do do	do ...	Richard Marshall.....	24½ do ...	1 75	42 88
do do	do ...	John House.....	1 do ...	1 75	1 75
do do	do ...	John Shultes, team...	25 do ...	3 50	87 50
do do	do ...	W. M. Jones.....	2 do ...	2 00	4 00
Watchman, shop and yard, Port Dalhousie.....	do ...	Oscar Sharp.....	31 do ...	1 25	38 75
do Lock 13 .....	do ...	Henry Hughes.....	31 do ...	1 20	37 20
do do .....	do ...	John McMillan .....	31 do ...	1 20	37 20
Painting floating pile-drivers, pontoon and fence around Toll Collector's new office, &c.....	do ...	John Doig.....	23 do ...	1 62½	37 35
do do ...	do ...	Robt. Johnson.....	21 do ...	1 62½	34 13
do do ...	do ...	W. Bowman.....	26 do ...	1 50	39 00
do do ...	do ...	John Howe.....	7 do ...	1 50	10 50
Building fence that was taken down to allow Contractors to proceed with their work &c. ...	do ...	Con. Read, Foreman...	26 do ...	2 00	52 00
do do ...	do ...	Jno. Murrel.....	26 do ...	1 50	34 50
do do ...	do ...	W. Bowman.....	26 do ...	1 50	39 00
do do ...	do ...	And. Secord.....	22 do ...	1 50	33 00
do do ...	do ...	Jos. Johnson, team...	18½ do ...	3 50	64 75
Putting stone in wash-out, Lock 25; waste weir and threshing out sweet clover seed for sowing banks, &c.....	do ...	Chas. Johnson, For...	14 do ...	2 00	28 00
do do ...	do ...	F. Donahue.....	10 do ...	1 50	15 00
do do ...	do ...	T. Donahue.....	8½ do ...	1 50	12 75
do do ...	do ...	Wm. Jones.....	7 do ...	1 50	10 50
do do ...	do ...	J. H. Booth.....	9½ do ...	1 50	14 25
do do ...	do ...	Robt. Hoover, team...	4½ do ...	3 50	15 75
Taking down old stone-house, Port Robinson: loading and hauling stone for building piers for new one; repairing bridge across roadway, Port Robinson Lock, &c. ....	do ...	R. A. Booth.....	25½ do ...	2 00	51 00
do do ...	do ...	Jno. Madigan.....	25 do ...	1 50	37 50
do do ...	do ...	Geo. Brown.....	25 do ...	1 50	37 50
do do ...	do ...	Jas. Hansell.....	25 do ...	1 50	37 50
do do ...	do ...	Benj. Redfern.....	24½ do ...	1 50	36 75
do do ...	do ...	Danl. Kelly, team....	7½ do ...	3 50	26 25
Opening up and cleaning out ditches, &c. ....	do ...	Jas. Clancey .....	26 do ...	2 00	52 00
do do ...	do ...	Hugh Bailey.....	25½ do ...	1 50	38 25
do do ...	do ...	Michael Blake.....	25½ do ...	1 50	38 25
do do ...	do ...	Geo. Walan.....	24½ do ...	1 50	36 75
do do ...	do ...	Wm. Pews.....	25½ do ...	1 50	38 25
Levelling in front and around Lock Tender's house, preparing for building new fence. Taking to pieces and reinstating swing bridge damaged by str. "Calvin." Excavating for and building culvert under tow-path, east side canal, con. 3, Humberstone, &c.....	do ...	Wm. Cook.....	20½ do ...	2 00	41 50



## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
Levelling in front and around Lock Tender's house, &c. ....	October ...	Chas. McCain.....	13 days...	2 00	27 50
do do ...	do ...	Jno. Cook .....	26 do ...	1 75	45 50
do do ...	do ...	J. Ryan .....	19 do ...	1 50	29 63
do do ...	do ...	Wm. Deeks.....	26 do ...	1 50	40 13
do do ...	do ...	J. Meyer .....	26 do ...	1 50	40 13
do do ...	do ...	C. Keen .....	26 do ...	1 50	40 13
do do ...	do ...	E. Sloat.....	26 do ...	1 50	40 13
do do ...	do ...	M. Authes.....	25 do ...	1 50	38 63
do do ...	do ...	H. Brennan.....	7 do ...	1 50	11 63
do do ...	do ...	R. Armstrong.....	6 do ...	2 00	12 00
do do ...	do ...	Saml. Cook, team.....	23 do ...	3 50	82 25
Helping Ferryman.....	do ...	Wm. Bradley.....	5 do ...	1 50	7 50
Taking care of passing vessels' lines, &c.; helping saving old bridge, Welland.....	do ...	Jno. Hanley.....	26 do ...	1 25	32 50
do do ...	do ...	A. Boyer .....	26 do ...	1 45	37 70
do do ...	do ...	Pat. Powers.....	26 do ...	1 50	39 00
Repairing old lock gates, rebuilding bridge across tail race at Sheckluna's, making storm doors for Lock 4 dwelling, building gates for waste weirs, &c., &c. ....	do ...	Nathan Morey.....	26 days...	2 75	71 51
do do ...	do ...	P. Shortell.....	26 do ...	2 00	52 00
do do ...	do ...	T. Rapsey.....	26 do ...	2 00	52 00
do do ...	do ...	S. Radcliffe.....	26 do ...	2 00	52 00
do do ...	do ...	Chas. Hill, team.....	9 do ...	3 50	33 25
do do ...	do ...	J. W. Boyle.....	31 do ...	1 00	31 00
Painting Lock tender's house, &c. ....	do ...	Thos. O'Neil.....	26 do ...	2 00	52 00
do do ...	do ...	Wm. Assell.....	15 do ...	1 25	19 38
do do ...	do ...	Richard Grant.....	15 do ...	1 50	23 25
do do ...	do ...	Robt. Wilson.....	27 do ...	1 50	40 50
Driving piles at the entrance of Lock 24, Port Robinson Bridge..	do ...	Wm. Tinlin .....	18 do ...	2 25	40 50
do do ...	do ...	Alf. Tinlin.....	13 do ...	1 50	20 25
do do ...	do ...	J. Sutton.....	13 do ...	1 50	20 25
do do ...	do ...	T. Johnston, horse.....	13 do ...	1 50	20 25
Quarrying out stones for general repairs, &c., &c. ....	do ...	Jas. Hamilton..	26 do ...	2 00	52 00
do do ...	do ...	Jas. Reynard.....	22 do ...	1 50	33 00
do do ...	do ...	Arthur Bradley.....	22 do ...	1 50	33 75
do do ...	do ...	Patrick O'Neil.....	21 do ...	1 50	32 25
do do ...	do ...	Jas. Faywell.....	20 do ...	1 50	31 13
do do ...	do ...	J. Laughhey.....	23 do ...	1 50	35 25
do do ...	do ...	John Dundas.....	22 do ...	1 50	33 75
do do ...	do ...	A. Bradley.....	23 do ...	1 50	35 25
do do ...	do ...	Wm. Tearney.....	13 do ...	0 75	10 13
do do ...	do ...	John Coyle, team.....	23 do ...	3 50	80 50
Building new derrick and stone scow for general repairs, Division No. 3 and 4 .....	do ...	F. T. Walton.....	26 do ...	2 75	71 50
do do ...	do ...	S. R. Bradley.....	26 do ...	2 00	52 00
do do ...	do ...	Ed. Smith.....	26 do ...	2 00	52 00
do do ...	do ...	Wm. Trapwell.....	26 do ...	2 00	52 00
do do ...	do ...	Wm. Dunn.....	17 do ...	2 00	34 00
do do ...	do ...	D. S. Walton.....	13 do ...	2 00	26 00
do do ...	do ...	D. Plumsted.....	13 do ...	2 00	26 00
do do ...	do ...	F. Shuman.....	26 do ...	1 50	39 00
do do ...	do ...	Alex. Walker.....	5 do ...	2 00	10 00
do do ...	do ...	Bart. O'Leary.....	2 do ...	2 00	4 00
Dunnville teams with repair gang	do ...	R. F. Lattimore.....	3 do ...	3 00	10 50
do do ...	do ...	Thos. McDonald.....	4 do ...	3 00	12 00

PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
Putting sluice way through tow-path, banks of feeder, at Hutchinson's road, repairing flood-gates at Dunnville, &c., &c.....	October ...	Jas. Edgar .....	23½ days...	1 50	35 25
do do ...	do ...	R. Mitchell .....	8 do ...	1 50	12 00
do do ...	do ...	Amos Main .....	8 do ...	1 50	12 00
do do ...	do ...	A. Shuhan .....	11 do ...	1 50	16 50
do do ...	do ...	W. Hutchinson, h & w	9 do ...	1 50	13 50
Repairing tow-paths and banks of feeder, &c.....	do ...	John Thrush .....	23 do ...	1 50	34 50
do do ...	do ...	Thos. Bessey .....	23 do ...	1 25	28 75
do do ...	do ...	Ed. Webber .....	23 do ...	1 25	28 75
do do ...	do ...	Ira Bessey .....	8 do ...	1 25	10 00
do do ...	do ...	Jas. Davis .....	20 do ...	1 25	25 00
do do ...	do ...	H. Fite .....	19 do ...	1 25	23 75
do do ...	do ...	Jas. Gamble .....	17 do ...	1 25	21 25
do do ...	do ...	Jas. Clarke .....	4½ do ...	1 25	5 31
do do ...	do ...	M. A. Smith, team .....	11 do ...	3 00	33 00
do do ...	do ...	R. G. Murdy do .....	12 do ...	3 00	36 00
do do ...	do ...	R. Montague do .....	7½ do ...	3 00	22 50
					3,572 72

## ACCOUNTS chargeable to Welland Canal—Repairs.

Date.		Amount.	Total.
		\$ cts.	\$ cts.
1886.			
Oct. 1-30...	To Cox Brothers, St. Catharines—		
	590 lbs. barbed wire, at 7½c., \$44.25; 22 lbs. staples, at 7½c., \$1.65.....	45 90	
	2 doz. screws, 10c.; 4 lbs. band iron, 12c.; 100 car bolts, \$1.50.....	1 72	
	6 bales oakum, at \$5, \$30; 30 lbs. spike, at 5c., \$15.....	45 00	
	142 galls. machine oil, at 65c.....	92 30	
	1 lb. castille soap, 25c.; 2 kegs nails, \$7.....	7 25	
	5 lbs. wrought nails, 50c.; 5 galls. turpentine, at 75c., \$3.75.....	4 25	
	5 galls. lard oil, at \$1, \$5; 55 lbs. tallow, at 8c., \$4.40...	9 40	
	181 lbs. iron, at 2½c., \$4.52; 2 knobs, 30; block, \$6.....	10 82	
	1 gall. oil, \$1 50; 6 lights glass, \$1.20; 30 lbs. putty, \$1.20.....	3 90	
			220 54
Sept. 1-30...	A. Muir & Bros., Port Dalhousie—		
	1 gall. tar, 25c.; 5½ lbs. washers, 42c.; oar, \$1.60.....	2 27	
	2 padlocks, 60c.; 1 hasp and staples, 10c.....	0 70	
	1 Brokenshire pump, \$35; 6½ feet pipe, \$1.95.....	36 95	
			39 92
Oct. 31...	John Cloy, Thorold—		
	2 skeins marline.....	0 50	
	92 lbs. canvas, at 10c.....	9 20	
			9 70
do 1-31...	James Wilson, Thorold—		
	2,116 lbs. spikes, at 4½c., \$95.22; 21 lbs. spikes, at 5½c., \$1.16.....	96 38	
	14 pair T. hinges, at 25c., \$3.50; 314 M. rope, at 12½c., \$39.25.....	42 75	
	15 lights glass, \$1.23; 49 car bolts, at 10c., \$4.90.....	6 13	
	1,238 car bolts, at 5c., \$61.90; 2 paint brushes, at 45c., 90c.....	62 80	
	250 lbs. wire rope, at 18c., \$45; 25 lbs. putty, at 5c., \$1.25	46 25	
	6 bolsters, at \$1, \$6; 5 bales oakum, at \$5, \$25.....	31 00	
	2 galls. turpentine, \$2; 5 galls. boiled oil, \$5; 1 keg nails, \$4.....	11 00	
	2 gross screws, \$1.15; 77 lbs. tallow, at 12½c., \$9 63; 6 files, at 40c., \$2.40.....	13 18	
	32 lbs. heaving line, at 15c., \$4 80; 16 lbs. washers, at 10c., \$1.60.....	6 40	
			315 89
do 1-31...	Henry Mussen, Allanburgh—		
	1 paint brush, \$1; ½ gall. paints, 80c.; repairs to lamp, 13c.....	1 93	
	8 galls. coal oil, at 30, \$2.40; 2 lbs. paint, 25c.; 3 elbows, 85c.....	3 50	
	8 lengths pipe, at 14c.....	1 12	
			6 55
do 1-31...	W. N. Garden, Welland—32 lbs. spikes, at 5c., \$1.60; 1 paint brush, \$1.....		2 60
do 13...	C. F. & H. Dunbar, Port Colborne—184 lbs. flat iron, at 5c.....		9 20
Oct. 1-30...	To John Mathews, Port Colborne—		
	281 lbs. spikes, at 5c., \$14.05; 100 lbs. nails, \$3.50.....	17 55	
	1 axe and helve, \$1.35; 1 axe and helve, \$1.31.....	2 66	
	Glass and putty, 88c.; 6 lanterns, at 75c., \$4.50.....	5 38	
	2 ship augers, at 95c., \$1.90; screws, 63c.....	2 53	
	1½ gall. boiled oil, at 80c.....	1 20	
			29 32
do 31...	P. McMurray, Welland—		
	3 glass in lamps, at 50c., \$1.50; 1 burner and collar, 85c.	2 35	
	2 reflectors, \$1.30; 5 hours time repairing lamp, \$1.....	2 30	
	Repairing office lamp.....	0 50	
			5 15



## ACCOUNTS chargeable to Welland Canal—Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1888.			
Oct. 31...	To Samuel Burrows, Port Colborne— 2 10-in. reflectors, \$2.75; repairing oil can and lamp, \$1.10 1 5-gal. oil can and feeder, \$1.35; 1 paint can, 50c..... Repairing semaphore lamp, 1 red light, &c.....	3 85 1 85 4 00	9 70
do 11...	Cunningham & Yale, St. Catharines—1 steel plate.....		2 25
June 1-30...	George Loyd, St. Catharines— 2 pieces galvanized iron, \$1.20; repairing lamps, 65c....	1 85	
July 1-31...	2 tin lamps, \$1.70; 5 caps, \$1, 3 plugs, 45c..... 79 ft. iron pipe, at 8c., \$6.32; 150 ft iron pipe, at 6c., \$9.00; 3½ ft. pipe, at 35c., \$1.23.....	3 15 16 58	
Aug. 1-30...	2 days, man and helper fitting pipe, &c., &c., at \$4..... 120 ft. gas pipe, at 10c., \$12; 16 ft. iron pipe, at 8c., \$1.28 3 ft. iron pipe, at 35c., \$1.05; 1 socket, 30c.; 1 elbow, 35c. 2 lock nuts, 55c.; 7 gas burners, \$1.50; solder, 40c..... 3 2-light pendants, at \$7, \$21; 1 2-light pendant, \$4..... 1 hall light, \$12; 2 Argand burners and chimney, at \$1.80..... 8 shade holders, \$1.80; 6 glass shades, at 90c., \$5.40..... 2 decorated shades..... 2½ days, man fitting gas, &c., at \$2.50.....	8 00 13 28 1 70 2 45 25 00 13 80 7 20 3 00 6 25	102 23
do 13...	E. Riddle & Son, St. Catharines—40 ft. 24-in. till, at \$1.75.		70 00
do 19...	Campbell Sewer Pipe Co., Hamilton—96 pieces 18-in. sewer pipe, at 50c.....		48 00
do 13...	John Date, Montreal—1 rubber cloth diving dress.....		50 50
Oct. 1-31...	To Neff & Son, Humberstone— 76 lbs. iron, at 2½c., \$1.90; 15½ lbs. nuts, at 6c., 93c.... 12½ hrs. machinist's work, at 40c..... 4½ do blacksmith and helper, 50c.....	2 83 5 00 2 25	10 08
do 7-20...	To F. Woods, Pt. Colborne— 72 lbs. screw bolts, at 6c., \$4.32; repairs for bolt and wedge, \$1.05..... 3 lbs. bolts, at 10c., 30c.; 6 lbs. washers, at 4c., 24c. ... 55 do rings and rods, at 5c..... 5 days' smith and helper, work on 2 cross girders, 2 longman rods and auger irons, at \$4. ....	5 37 0 54 2 75 20 00	28 66
do 1-31...	To James Wilson, Merritton— (Blacksmith work.) 903 lbs. rods repaired, at 1½c., \$13.54; 851 lbs. bolts re- paired, at 2½c., \$20.28..... 416 lbs. rag bolts, at 34c., \$12.48; 1,565 lbs. screw bolts, at 5c., \$78.25..... 1,794 lbs. bands, at 4c., \$71.76; 43½ lbs. steel, at 20c., \$8.70..... 32 lbs. Loumon iron, at 7c., \$2.24; 90 lbs. rag bolts rep., 90c..... 11 lbs. steeling, at 6c., 66c.; 3 hrs. smith work, at 40c., \$1.20..... (Foundry work.) 3,060 lbs. castings, at 3½c..... 30 lbs. brass nuts, at 30c..... 163 hrs. machine work and machinist drilling, fitting, &c., at 40c..... Paid freight and express charges on castings to Port Colborne .....	34 82 90 73 80 46 3 14 1 86 107 10 9 00 65 20 14 95	407 26

## ACCOUNTS chargeable to Welland Canal—Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
Oct. 1-31...	To McCleary & McLean, Thorold—		
	4,780 ft. oak, at \$25, \$119 50; 5,791 do., at \$28, \$145.35..	264 85	
	5,656 do \$27, \$152 71; 297 ft. pine, at \$17, \$5.05..	187 76	
	5,316 ft. pine, at \$18, \$95.68; 9,514 ft. do., at \$16, \$152.22.	247 90	
	500 do \$13.50, \$6.75; 1,000 ft. do., at \$17 50,		
	\$17.50 .....	24 25	
	153 cedar posts, at 20c.....	30 60	
	1,121 ft. oak piling, at 15c. ....	168 15	
	6 window frames and sash at \$2.75 .....	16 50	
	2 half round window frames, at \$2.50.....	5 00	
	31 bunches shingles, at 80c.....	24 80	
			939 81
do 9.....	To Geo. W. Chase, Pt. Colborne—		
	Elm timber, \$3.50; pine boards, \$2 .....		5 50
do 1-30...	To Charles Loesch, Welland—		
	35 meals, at 25c., \$8.75; hay and oats for team, \$1.70 ...		10 45
	(Above for men and team away from home.)		
do 1-31...	To Thos. J. O'Niel, Port Colborne—		
	127 meals, at 25c. ....		31 75
	(Above for men from yard, and Pt. Dalhousie and Thorold to Pt. Colborne, repairing piers and bridge damaged.)		
do 1-31...	To H. Vanderburg, Allanburgh—25 railway fares to Port Dalhousie and return.....		17 50
do 1-31...	Robert Foster, St. Catharines—		
	Horse and buggy, 2 days, at \$2, \$4; 1 horse and buggy, ½ day, \$1.50.....	5 50	
	Horse and waggon for machinist repairing bridges, 13 days, at \$2.50.....	32 50	
do 1...	Tug "James Norris," Port Dalhousie, towing Government scow "Gordon" .....		38 00
do 1-31...	Grand Trunk Railway Co., Port Colborne—		4 00
	Freight on sewer pipe for Hamilton.....	12 23	
	do do St. Catharines.....	5 00	
			17 23
do 1-31...	D. Hughes, Port Colborne—		
	Express charges and freight on castings, tool box, &c., from St. Catharines and Merriton.....	8 48	
	5 railway tickets, St. Catharines and return, at \$1.20, \$6; 1 single ticket, St. Catharines and return, \$1.40...	7 40	
			15 88
do 1-31...	Cox Brothers, St. Catharines—		
	2 kegs blasting powder, \$8; 300 feet fuse, \$6 .....	14 00	
	3 gallons coal oil, 90c.; 1 rim lock, 50c.....	1 40	
	3 latches, 45c.; 2 dozen hooks and eyes, \$1.50.....	1 95	
	3 pairs butts, 54c.; and paper tacks, 5c.....	59	
	2 paint brushes, \$2; 7 lights glass, 90c.....	2 90	
	3 gallon oil, \$1.50; 1 tower bolt, 15c.....	1 65	
			22 49
do 1-31...	Battle & Smith, Thorold—		
	12 glass window panes, at \$1.50.....	18 00	
	20 do do \$1.90.....	38 00	
			56 00
do 1-31...	James Rolston, Dunnville—		
	1 hasp, 13c.; 2 doz. glass, 12x24, \$2.80.....	2 93	
	8 doz screws, 30c.; 4 brackets, \$1.10.....	1 40	
	1 axe, \$1; 17½ lbs. putty, at 4c.; 1 broom, 30c.....	2 00	
	1 gallon Japan; ½ gallon turpentine, 50c.....	1 90	
	6 coach screws and washers.....	50	
	1 gallon lard oil, \$1.50; 1 keg nails, \$2.75. ....	4 25	
	1 pair 20 lb. screw jacks.....	15 00	
			27 98

ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Works.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Oct. 31...	To Joseph Strickluna, Ship-builder, St. Catharines— 9 picks repaired, at 10c., 90c.; 28 lbs. bolts repaired, at 3c., 84c.....	1 74	
	25 spike bolts, at 6c., \$1.50; 12 spike bolts repaired, \$1.05.....	2 55	
	7½ hours forging, at 50c.....	3 75	
	7½ do helper, at 15c.....	1 13	
	4 caulkers, 5 days each, at \$2.12½.....	42 50	
			51 67
Oct. 1-31...	James Wilson, Merritton— 22 lbs. steel work, at 20c.....	4 40	
	870 lbs. bolts, at 5c., \$43.50; 1,754 lbs. plates, &c., at 4c., \$70.16.....	113 66	
	617 lbs. bolts repaired, at 2½c., \$15.42; 635 lbs. straps repaired, at 1½c., \$9.53....	24 95	
	15 lbs. castings, at 3½c.....	0 53	
	77 hours machine work, boring, drilling and fitting, at 40c.....	30 80	
			174 34
Oct. 31...	H. P. & Wm. McCraney, St. Catharines— Amount of claim for damage to our lot, being part of Lot No. 16, in 6th Concession, Township Grantham, caused by washout of hydraulic mill race, loss of fruit trees, &c., &c. This claim being in full of all demands, past and future, for all damages arising or accruing from the above named accidents, which occurred in November, 1884.....		300 00
Oct. —...	McClearey & McLean, Thorold— 2,953 ft. oak, at \$27, \$79.72; 2,844 ft., at \$28.00, \$79.63... 162 do 29, 4.70; 1,348 do 25.00, 33 70... 4,238 ft. pine, at 16, 67.81; 2,400 do 16.50, 39.60... 259 do 35, 9.06; 375 do 17.50, 6.56... 256 do 18, 4.61; 678 do 17.00, 11.53... 76 ft. cove, at 14, 76c.; 6 bundles shingles, at 80c., \$4.80..... Band sawing cleats..... 6 sash, at 35c., \$2.10; 1,081 ft. moulding, \$1.62; 8 rollers, \$2..... 200 ft. pine plank, at \$13.50.....	159 35 38 40 107 41 15 61 16 14 5 56 0 75 5 72 27 00	375 94
Oct. 1-31...	R. G. Murdy, Dunnville— 50 yards gravel, at 60c..... 2 cords stone, at \$4.50.....	30 00 9 00	39 00
Oct. 1-31...	Thomas Hastings, St. Catharines— 700 brick, at 90c., \$6.30; 6½ brls. mortar, \$6.50..... 2 tickets (railway) Port Colborne and return..... 7 days mason, plastering, &c., at \$3..... 5 days keeper, at \$1.50.....	12 80 2 40 21 00 7 50	43 70
Oct. 31...	George Gibson, P.L.S., St. Catharines—3 days staking Government quarry hydraulic race, at \$5.....		15 00
Oct. 1-31...	James Upper, Allanburgh—25 meals for men on repair scows, at 25c.....		6 25
Oct. 1-31...	William Martin, Stromness—17 meals for men away from home on repairs, at 25c.....		4 25
	Total.....		3,564 29



**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of November, 1886, to pay for repairing Port Colborne Pier damaged by storm, chargeable to Special Account.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
Repairing and reinstating partial injury done to the West Pier, Port Colborne Harbor, until more extensive restorations can be made next spring, &c.	Nov., 1886	Wm. Cook.....	23 $\frac{1}{2}$ days...	\$ cts. 2 00	\$ cts. 51 50
	do	R. Chalmer.....	16 $\frac{1}{2}$ do ...	1 50	24 38
	do	C. McChain.....	15 $\frac{1}{2}$ do ...	1 50	22 88
	do	Hy. Brenen.....	26 do ...	1 25	32 50
	do	Thos. Pringle.....	9 $\frac{1}{2}$ do ...	1 25	11 56
	do	N. McCracken.....	14 $\frac{1}{2}$ do ...	1 25	18 44
	do	J. Harbison.....	10 do ...	1 25	12 50
	do	Con. Ryan.....	9 $\frac{1}{2}$ do ...	1 25	11 88
	do	J. Kingston.....	12 do ...	1 25	15 00
	do	M. Makegan.....	1 $\frac{1}{2}$ do ...	1 25	1 88
	do	Jas. Britton.....	10 do ...	1 25	12 50
	do	F. Boyer.....	14 do ...	1 25	17 50
	do	Wm. Dean.....	12 do ...	1 25	15 00
	do	D. Wilcox.....	.....	.....	21 88
	do	R. McNeal.....	.....	.....	10 00
	do	F. Mahaffey.....	.....	.....	6 25
	do	Thos. J. O'Neil.....	.....	.....	5 94
	do	Wm. Ramsey.....	.....	.....	17 81
	do	J. Richards.....	.....	.....	2 19
					311 59

**ACCOUNTS** chargeable to Welland Canal, Repairs, Port Colborne Pier.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Nov. 5-24...	To John Mathews, Port Colborne— 1,467 lbs. 6-inch, 7-inch and 8-inch spikes, at 4 $\frac{1}{2}$ c..... 2 saw files.....	66 02 0 20	66 22
do 1-30...	James Wilson, Merritton— 1,049 rag bolts at 3c., \$31.47; 5 auger handles, 25c. .... 1,056 do rep. at 1c., \$10.56; 69 lbs. steel bars, at 6c., \$4.14.....	31 72 14 70	46 42
do 3...	John Bradley, Thorold—180 $\frac{3}{4}$ yards stone, at 90c., for pier, Port Colborne.....	.....	162 80
do 30...	McCleary & McLean, Thorold—21,583 feet, 3 x 8, 3 x 10 and 3 x 12, pine, at 16c.....	.....	345 32
	Total.....	.....	620 76

**PAY-LIST** in duplicate of persons employed on the West Pier at Port Maitland, in securing Timbers during the month of November, to place binders on sides of superstructure to secure old Timbers, chargeable to Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenters putting binders on West Pier at Port Maitland.....	Nov., 1886	James Edgar.....	6½ days...	1 50	9 75
do do ...	do	John Taylor.....	3 do ...	1 50	4 50
do do ...	do	Job. Mathews.....	2½ do ...	1 50	3 75
Laborers levelling stone and piling old timbers and planks...	do	John Thrush.....	7 do ...	1 50	10 50
do do ...	do	Edward Webber.....	7 do ...	1 25	8 75
do do ...	do	Hiram Fite.....	4 do ...	1 25	5 00
do do ...	do	Thos. Bessey.....	3 do ...	1 25	3 75
do do ...	do	James Gamble.....	4 do ...	1 25	5 00
Team drawing old timber and planks.....	do	R. G. Murdy.....	3 do ...	3 00	9 00
do do ...	do	Thos. McDonald.....	2 do ...	3 00	6 00
					66 00

**PAY LIST** in duplicate of Persons employed on the Welland Canal during the month of November, 1886, to pay Carpenters, Laborers, Teams and accounts, chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Repairing piers, waste weir, bridges and wheelbarrows, &c.	Nov., 1886	H. Vanderburgh.....	1 month...	75 00	75 00
do do ...	do	Wm. Patterson.....	12 days....	2 00	24 00
do do ...	do	C. Demare.....	26 do ...	2 00	52 00
Painting pontoon house and helping at general repairs, &c. ....	do	John Doig.....	22½ do ...	1 62½	36 16
do do ...	do	Robt. Johnston.....	25 do ...	1 62½	40 63
do do ...	do	John Shultes, team ...	22½ do ...	3 00	67 50
Watchman, shop and yard, Port Dalhousie.....	do	Oscar Sharpe.....	30 do ...	1 25	37 50
do do Lock 13	do	John McMillan.....	30 do ...	1 20	36 00
do do ...	do	Henry Hughes.....	30 do ...	1 20	36 00
Cleaning out roadway and drains through tunnel after storms; facing banks with stone near waste weir, Lock 25.....	do	Chas. Johnson.....	11 do ...	1 75	19 25
do do ...	do	Wm. Jones.....	20½ do ...	1 25	25 63
do do ...	do	F. Donahue.....	26 do ...	1 25	32 50
do do ...	do	J. H. Booth.....	25 do ...	1 25	31 25
do do ...	do	Robt. Hoover.....	6 do ...	3 00	18 00
Drawing out broken piles and driving additional new ones all along approaches, Port Robinson Bridge. ....	do	Wm. Tinlin.....	26 do ...	2 25	58 50
do do ...	do	Alp. Tinlien.....	24½ do ...	1 50	36 75
do do ...	do	John Sutton.....	24½ do ...	1 50	36 75
do do ...	do	Jos. Johnson, horse...	24½ do ...	1 50	36 75
Taking off decayed walings and shore braces; cutting 6 feet off piles forming approaches to Port Robinson Bridge; cutting new and stronger walings and caps; re-arranging and replacing short end shore braces to lower level.	do	F. T. Walton.....	26 do ...	2 75	71 50
do do ...	do	S. R. Bradley.....	22½ do ...	2 00	44 50

PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Taking off decayed walings and shore braces, &c.....	Nov., 1886	Ed. Smith.....	14½ days...	2 00	28 50
do do ...	do	W. Trapwell.....	22 do ...	2 00	44 00
do do ...	do	D. S. Walton.....	22 do ...	2 00	44 00
do do ...	do	D. Plumsted.....	22 do ...	2 00	44 00
do do ...	do	Benj. Baker.....	18¾ do ...	2 00	37 50
do do ...	do	R. Jackson.....	18¾ do ...	2 00	37 50
do do ...	do	Alex. Abbey.....	19 do ...	2 00	38 00
do do ...	do	Wm. Dunn.....	4½ do ...	2 00	9 00
do do ...	do	F. Shuman.....	23¼ do ...	1 50	34 88
do do ...	do	Wm. Abbey.....	8½ do ...	1 50	12 75
Stonecutter, cutting checks in slope stone wall.....	do	D. McIver.....	6½ do ...	3 00	19 50
Removing Government House out of contractor's way.....	do	R. A. Booth.....	26 do ...	1 75	45 50
Taking down stone wall, Port Robinson Bridge, to admit lowering shore braces; opening up ditches, &c.....	do	John Madigan.....	20¼ do ...	1 25	25 63
do do ...	do	Geo. Brown.....	20¼ do ...	1 25	25 63
do do ...	do	Jas. Hansel.....	22½ do ...	1 25	28 13
do do ...	do	Ben. Redfern.....	21½ do ...	1 25	26 88
do do ...	do	Dan. Kelly (team).....	6 do ...	3 00	18 00
Carpenter, building stone house..	do	Jas. Wilkerson.....	18½ do ...	2 00	37 00
Clearing out and opening up back ditches, &c.....	do	Jas. Clancy.....	26 do ...	1 75	45 50
do do ...	do	Hugh Bailey.....	18 do ...	1 25	22 50
do do ...	do	Mich. Blake.....	19½ do ...	1 25	24 38
do do ...	do	Geo. Nolan.....	21 do ...	1 25	26 25
do do ...	do	Wm. Peno.....	21 do ...	1 25	26 25
Building culvert under towpath east side of canal, Concession 3, Humberstone.....	do	Wm. Deeks.....	26 do ...	1 75	45 50
do do ...	do	J. Cook.....	11 do ...	1 75	} 37 38
do do ...	do	J. Moyer.....	14½ do ...	1 25	
Opening up and clearing out back ditches, &c.....	do	C. Keen.....	24 do ...	1 25	30 00
do do ...	do	E. Sloat.....	26 do ...	1 25	32 50
do do ...	do	M. Anthes.....	23½ do ...	1 25	29 38
do do ...	do	F. Moyer.....	23 do ...	1 25	28 75
do do ...	do	J. Ryan.....	24½ do ...	1 25	30 31
do do ...	do	Sam. Cook (team).....	11½ do ...	3 00	35 25
Taking care of and passing vessels' lines, &c.....	do	John Hanley.....	21 do ...	1 25	26 25
do do ...	do	Adolph Boyer.....	26 do ...	1 45	37 70
Helping at Welland Bridge.....	do	Patk. Powers.....	26 do ...	1 50	39 00
Attending Port Colborne Ferry (ferryman disabled).....	do	Wm. Bradley.....	30 do ...	140 00	42 00
OLD WELLAND AND FEEDER CANAL.					
Repairing pile driver; preparing piles for driving; driving piles, 12-Mile Creek and Lock 2; sheeting piles; cutting off piles along floating tow path.....	do	N. Morey.....	26 do ...	2 75	71 50
do do ...	do	P. Shortell.....	26 do ...	2 00	52 00
do do ...	do	T. Rapsey.....	26 do ...	2 00	52 00
do do ...	do	S. Radcliffe.....	26 do ...	2 00	52 00
Building gates for water weir.....	do	Chas. Hill (team).....	23¾ do ...	3 00	71 25
Watchman, gate yard and shop...	do	J. W. Boyle.....	30 do ...	1 00	30 00



PAY-LIST in duplicate of Persons employed on the Welland Canal—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
					\$ cts.
Painting bridge; putting down new snubbing posts at Locks 3, 5 and 17; cutting brush along hydraulic race, &c.....	Nov., 1886	Thos. O'Neil .....	28 days...	1 75	49 00
do do ... do	do	Wm. Assil .....	15 do ...	1 25	18 75
do do ... do	do	Robt. Wilson.....	24½ do ...	1 25	30 63
do do ... do	do	Rich. Grant.....	18 do ...	1 25	22 50
Quarrying out stone, loading and unloading stone scow.....	do	James Hamilton.....	24½ do ...	1 75	42 87
do do ... do	do	James Reynard.....	22 do ...	1 25	27 50
do do ... do	do	Arthur Bradley.....	14 do ...	1 25	17 50
do do ... do	do	Patrick O'Neil.....	20½ do ...	1 25	25 94
do do ... do	do	Jas. Faywell.....	21½ do ...	1 25	26 56
do do ... do	do	J. Laughy.....	19½ do ...	1 25	24 69
do do ... do	do	J. Dundas.....	14 do ...	1 25	17 81
do do ... do	do	Abs. Bradley.....	21½ do ...	1 25	27 19
do do ... do	do	Alex. Bradley.....	4 do ...	1 25	5 00
Teams hauling stone from quarry to scow.....	do	John Coyle.....	20 do ...	3 00	60 00
do do ... do	do	Ham Page.....	5 do ...	3 00	15 00
do do ... do	do	John Bradley.....	4½ do ...	3 00	13 50
Putting new foot boards on Guard Lock gates, and repairing flood gates.....	do	Jas. Edgar.....	8 do ...	1 50	12 00
do do ... do	do	John Read.....	4 do ...	1 25	5 00
Repairing towpaths and banks, unloading stone scow; remov- ing sunken logs out of Port Maitland Lock; repairing boom timber, &c.....	do	John Thrush.....	20 do ...	1 50	30 00
do do ... do	do	Thos. Bessey.....	10 do ...	1 25	12 50
do do ... do	do	Jas. Davis.....	10 do ...	1 25	12 50
do do ... do	do	Ed. Webber.....	10 do ...	1 25	12 50
do do ... do	do	Hiram Fite.....	10 do ...	1 25	12 50
do do ... do	do	Jas. Gamble.....	16 do ...	1 25	20 00
Teams hauling material for re- pairing banks, also hauling rubbish out of culverts, &c.....	do	R. G. Murdy.....	9 do ...	3 00	27 00
do do ... do	do	Henry Aikins.....	2½ do ...	3 00	6 75
do do ... do	do	A. Galbraith.....	5 do ...	3 00	15 00
do do ... do	do	M. A. Smith.....	2 do ...	3 00	6 00
Painting wood work inside of Locktender's house, Port Maitland.....	do	T. C. Tipton.....	8 do ...	1 50	12 00
Cleaning out back ditch east and west side stone culvert.....	do	C. Wilson.....	12 do ...	1 50	18 00
do do ... do	do	S. Mains.....	9 do ...	1 25	11 25
do do ... do	do	Cal. Dutcher.....	9 do ...	1 25	11 25
do do ... do	do	C. Billard, team.....	3 do ...	3 00	9 00
					2,950 41

## ACCOUNTS chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1886.			
Nov. 1-30...	To Coy Bros., St. Catharines—		
	100 lbs. spikes, \$5; 10 lbs. cut nails, 40 cts.....	5 40	
	10 lbs. plaster Paris, 50 cts.; 79 lbs. putty, at 3½ cts., \$2.76.....	3 26	
	5 galls. lard oil, at \$1.....	5 00	
			13 66
do 1-30...	James Wilson, Thorold—		
	4 gals. boiled oil, at \$1, \$4; 2 mauls, 40 cts.....	4 40	
	2 pair steel hinges, 40 cts.; 30 lbs. Venetian red, at 10 cts., \$3.....	3 40	
	30½ lbs. heaving line, at 15 cts.....	4 58	
	2 pkgs. finishing nails, 50 cts.; 4 axes and handles, at \$1.25, \$5.....	5 30	
	Glass, 51 cts.; 4 lbs. putty, 20 cts.; 135 lbs. spikes, at 4½ cts., \$6.08.....	6 79	
	159 lbs. manilla rope, at 12½ cts., \$19.88; 2 burners and chimneys, 85 cts.....	20 73	
	<i>*Supplies for Government scow and men.</i>		
	1 doz. plates, \$1.30; 1 doz. cups and saucers, \$1.35.....	2 65	
	2 pitchers, \$1; 10 lbs. salt, 10 cts.; 1 lb. mustard, 40 cts.	1 50	
	8 bush. potatoes, at 60 cts., \$4.80; 191 lbs. meat, at 10 cts., \$19.10.....	23 90	
	18 loaves bread, at 11 cts., \$1.98; 1 broom, 25 cts.....	2 23	
	1½ pepper, 45 cts.; 3 lbs. coffee, \$1.20; 1 lb. tea, 50 cts.	2 15	
	10½ lbs. cheese, at 15 cts., \$1.58; 8 pr. blankets, at \$2.25, \$18.....	19 58	
	¾ bush. onions, 90 cts.; 7 yds. towelling, at 10 cts., 70c.	1 60	
	1 box matches, 15 cts.; 2 galls. vinegar, 80 cts.....	0 95	
	5 qts. beans, 28 cts.; 2 lamp burners, 30 cts.....	0 55	
	22 lbs. butter, at 25 cts.....	5 50	
	3 chimneys, at 10 cts.....	0 30	
	(*These supplies were for men boarding and sleeping on Government scow.)		106 11
do 1-30...	R. A. Abbey, Port Robinson—		
	170 lbs. nails, at 3½ cts., \$5.95; 21 ft. shingles, at 4½ cts., 95 cts.....	6 90	
	18 galls. coal oil, at 30 cts., \$5.40; 5 lamp chimneys, at 10 cts., 50 cts.....	5 90	
	*1 box mustard, 15 cts.; 17 loaves bread, at 12 cts., \$2.04.	2 19	
	*15½ lbs. butter, at 20 cts., \$3.10; 2 lbs. tea, at 60 cts., \$1.20; 3½ lbs. cheese, 50 cts.....	4 80	
	*Sugar, \$1; 53 lbs. salt, 53 cts.; 2 brooms, 50 cts.....	2 03	
	*1 lantern, 80 cts.; 11 lbs. meat, 88 cts.; 1 bush. potatoes, 60 cts.....	2 28	
	(*These supplies were for men boarding and sleeping on Government scow.)		24 10
do 1-30...	Wm. V. Garden, Welland—		
	1 wrench, 65 cts.; 10 wrought spikes, 50 cts.....	1 15	
do 6-11...	Paid freight on diving apparatus from Port Dalhousie...	1 40	
	Railway fares for diver and assistant from Port Dalhousie and return.....	3 00	
	Paid cartage diving apparatus from station to aqueduct.	1 00	
			6 55
do 1-30...	John Mathews, Port Colborne—		
	23 lbs. manilla rope, \$2.88; 1 doz. iron buttons, 53 cts...	3 41	
	1 gross screws, 50 cts.; 3 in. strap hinges, 38 cts.; 4 files, 40 cts.....	1 28	
	2 bolts, 10 cts.; 2½ lbs. putty, 13 cts.; 4½ prs. hinges, at 10 cts., 45 cts.....	0 68	
	Hasp and staples, 14 cts.; 10 lbs. nails, 50 cts.....	0 64	
	¼ ton coal, at \$6.....	1 50	
			7 51

ACCOUNTS chargeable to Welland Canal, &c.—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1886.	To William Thompson, Thorold—Outfit for men boarding on Government scow—		
Nov. 1-30...	15 lengths pipe, at 15c., \$2.25; 2 elbows, 70c.; 1 thimble, 25c.....	3 20	
	1 cook stove, \$12.00; 2 iron pots, \$1.50; galvanized pail, 40c.....	13 90	
	6-quart pail, 20c.; 2 spiders, 80c.; tea-pot, 50c.; tea drawer, 15c.....	1 65	
	1 coffee pot, 50c.; 1 dipper, 20c.; 2 wash basins, 50c.; dust pans, 50c.....	1 70	
	2 iron pans, 40c.; 2 3-qt. pails, 40c.; 2 pot covers, 30c....	1 10	
	1 dozen knives and forks, 95c.; 2 dozen spoons, 65c.....	1 60	
	Steamer, 25c., tea kettle, 85c.; 14 lbs. line, \$1.12.....	2 22	
	1 ventilator, \$1.75; repairs to pump, 75c.....	2 50	
	2 stove doors, 75c.; mica, 48c.....	1 23	
	200 feet of 12-inch galvanized iron, at 12c.....	24 00	
			53 10
do 1-30...	J. G. Demare, Port Dalhousie—		
	Paid 2 railway fares to Welland, <i>re</i> diver.....	1 10	
	Railway fares to Hamilton and return.....	2 25	
	Dinner, 35c.; express charges, 38c.....	0 73	
	Freight on paints, 35c.; freight on diving apparatus from Welland, \$1.61.....	1 96	
			6 04
do 1-30...	Henry Vanderburgh, Allanburgh—		
	23 railway fares to Port Dalhousie and return, at 70c....	16 10	
	2 do St. Catharines, at 45c.....	0 90	
			17 00
Oct. 4...	W. Chatfield, St. Catharines—		
Nov. 30...	3 railway fares, Port Colborne and return, \$1.50.....	4 50	
	C. P. charges on tools.....	0 30	
	Street car fares.....	0 60	
			5 40
do 30...	Geo. Wilson, St. Catharines—1 sign board for collector's office, Port Dalhousie.....		3 50
do 30...	Battle & Smyth, Thorold—20 galls. paint, at \$1.90.....		38 00
do 1-30...	Robert Foster, St. Catharines—		
	Horse and buggy, for Superintendent, $\frac{1}{2}$ day.....	1 50	
	Horse and waggon, with men, repairing bridges, &c., 8 days, at \$2.50.....	20 00	
			21 50
do 1-30...	Mrs. Jordan, Port Robinson—		
	66 days' board, 3 men, at 75c.....	49 50	
	22 do horse, at 75c.....	16 50	
			66 00
	(Above for men on pile driver at Port Robinson and away from home)		
Nov. 1-30...	To Charles Loesch, Welland—40 meals, for driver and assistant, at 25c.....		10 00
do 1-30...	James Wilson, Merritton—		
	Blacksmith work—		
	125 lbs. ironwork, repaired, at 2c....	2 50	
	2,509 lbs. screw bolts, repaired, at $2\frac{1}{2}$ c.....	62 73	
	36 rag bolts, at 3c.....	1 08	
	724 lbs. straps and bands, at 4c.....	28 96	
	3,194 screw bolts, at 5c.....	159 70	
	98 lbs. steel work, at 20c.....	19 60	
	Foundry work—		
	779 lbs. castings, at $3\frac{1}{2}$ c.....	27 26	
	60 brasses, at 30c., \$18; 59 hours machine work, at 40c, \$23.60.....	41 60	
			343 43



ACCOUNTS chargeable to Welland Canal, &c.—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
Nov. 1-30...	McCleary & McLean, Thorold— 4,160 feet oak, at \$27, \$112.32; 128 feet pine, at \$18, \$2.48 7,997 feet pine, at \$16, \$127.95; 312 do \$22, \$6.86 176 do \$30, \$5.28; 6 do \$35, 21c... 44 do \$40, \$1.76; 13 cedar posts, 20c., \$2.60 1,025 feet piling, at 15c..... 18 feet moulding, at 2c., \$36; \$16 feet o. g. casing, at 2½c., 40c..... 4 fence caps, \$1; 4 posts, 80c.; 156 feet slip tongue, 7½c... 470 pickets, at 3c., \$14.10; 144 feet dressed, at 64c., \$8.64. 18 feet core, 27c.; 5 strips, 15c.....	114 80 134 81 5 49 4 36 153 75 0 76 2 97 22 94 0 42	440 10
	<i>Old Welland and Feeder Canal.</i>		
do 1-30...	Coy Bros., St. Catharines— 3 gallons boiled oil, at 80c., \$2.40; ½ gallon turpentine, 38c..... 2 key rings, 20c.; 1 paint brush, 15c.; 1 barn broom, 75c. 58 feet steel wire rope, at 20c., \$14.60; 20 lbs. cut nails, at 4c., 80c..... 55 feet manilla rope, at 15c., \$8.25; 6 gallons oil, 30c., \$1.80..... 1 broom, 40c.; 3½ lbs. ratline, 52c.; 41 lbs. spikes, at 4c., \$1.64..... 15 lbs. spikes, at 5c., 75c.; 3 axes and handles, at \$1.25, \$3.75.....	2 78 1 10 12 40 10 08 2 56 4 50	33 39
do 15...	James Quinn, owner of schooner "Highland Beauty," Oakville— Damages caused by rotten snubbing post breaking off while vessel entering lock, as follows:— 1 gib boom..... 1 splitsail yard, \$3; 1 iron cap and stay, \$4..... 1 gib topsail, \$15; 2 outer gib boom guys, \$3.....	28 00 7 00 18 00	50 00 28 50
do 1-4...	Battle & Smyth, Thorold—15 gallons mixed paints, \$1.90..		28 50
do 16...	Thomas Grenville, Thorold—painting and lettering 2 signs. ....		2 00
do 15-16...	John Bradley, Thorold—431 yards stone delivered at Dunn- ville from Port Colborne, at \$1 per yard.....	431 00	
do 1-3...	James Wilson, Merriton— 22 lbs. brasses, at 30c., \$6.60; 55 lbs. castings, at 3½c., \$1.93..... 57 hours time, machinist and machinery, 40c..... Blacksmithing—	8 53 22 80	
do 1-20...	136 lbs. bars, repaired, at ½c., \$2.04; 232 lbs. bolts, repaired, at 2½c., \$5.80..... 146 lbs. straps, at 4c., \$5.84; 521 lbs. screw bolts, at 5c., \$26.05..... 134 lbs. steeling at 6c., \$8.04; 63 lbs. new steel, at 20c., \$12.60.....	7 84 31 89 20 64	
do 1-30...	McCleary & McLean, Thorold— 2,316 feet oak, at \$27, \$62.53; 3,628 feet oak, at \$25, \$90.65..... 2,639 feet oak, at \$20, \$52.78; 1,955 feet pine, at \$16, \$31.28..... 2,852 feet pine, at \$18, \$51.34; 120 feet hickory, at \$30, \$3.69..... 660 feet piling, 15c.....	153 18 84 06 55 03 99 00	391 27 2,189 86

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of December, 1886, to pay Carpenters, Laborers, Teams, chargeable to Removals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1886.			\$ cts.	\$ cts.
<b>Taking off decayed waling and shore braces; cutting off 6 piles forming approaches to Pt. Robinson Bridge; Putting in new and stronger walings and caps; re-arranging and replacing shortened shore braces to lower level; blocking up bridges for winter use, &amp;c.....</b>	December.	H. Vanderburgh.....	1 month...	75 60	75 00
do do ...	do ...	F. T. Walton.....	18 days...	2 50	45 00
do do do	do ...	S. R. Bradley.....	13 do ...	1 75	22 75
do do do	do ...	Ed. Smith.....	13 do ...	1 75	22 75
do do do	do ...	W. Trapnell.....	13 do ...	1 75	22 75
do do do	do ...	D. S. Walton.....	13 do ...	1 75	22 75
do do do	do ...	Wm. Dunn.....	13 do ...	1 75	22 75
do do do	do ...	Benj. Baker.....	4 do ...	1 75	7 00
do do do	do ...	R. Jackson.....	3½ do ...	1 75	6 13
do do do	do ...	Alex. Abbey.....	4 do ...	1 75	7 00
do do do	do ...	D. Plumsted.....	13 do ...	1 75	22 75
do do do	do ...	Wm. Abbey.....	4 do ...	1 50	6 00
do do do	do ...	F. Shannon.....	4 do ...	1 50	6 00
<b>Stone cutter, cutting checks on stone wall .....</b>	do	D. McIver.....	2 do ...	3 00	6 00
<b>Teams hauling material, Pt. Robinson Bridge, &amp;c.....</b>	do	D. Kelley.....	6 do ...	3 00	18 00
do do .....	do	Jno. Coyle.....	4 do ...	3 00	12 00
<b>Drawing out broken piles and driving additional new ones all along approaches Pt. Robinson bridge, &amp;c.....</b>	do	Wm. Finline.....	4 do ...	2 25	9 00
do do ...	do	Alf. Finline.....	4 do ...	1 50	6 00
do do do	do	Jno. Sutton.....	4 do ...	1 50	6 00
do do do	do	Jas. Johnson, horse...	4 do ...	1 50	6 00
<b>Watcher's shop and yard, Pt. Dalhousie.....</b>	do	Oscar Sharp.....	31 do ...	1 25	38 75
<b>Watcher, Lock 13.....</b>	do	Jno. McMillan.....	16 do ...	1 20	19 20
do do .....	do	Henry Hughes.....	15 do ...	1 20	18 00
<b>Bringing tool book and tools from above Welland to Pt. Robinson and storing same away....</b>	do	Jas. Clancey.....	1 do ...	1 75	1 75
do do ...	do	Hugh Bailey.....	1 do ...	1 25	1 25
do do do	do	Mich. Blake.....	1 do ...	1 25	1 25
do do do	do	Geo. Nolan.....	1 do ...	1 25	1 25
do do do	do	Wm. Pew.....	1 do ...	1 25	1 25
do do do	do	J. Dunlop.....	1½ do ...	1 25	1 88
do do do	do	Jno. Cook.....	1 do ...	1 25	1 25
do do do	do	Wm. Aikens.....	1 do ...	1 25	1 25
<b>Building storehouse, Division 3, Pt. Robinson, &amp;c., &amp;c.....</b>	do	Jacob Wilkerson.....	18 do ...	1 75	31 50
do do ...	do	Jas. McCoppen.....	6 do ...	1 25	7 50
do do do	do	R. Stevenson.....	2½ do ...	1 25	3 13
do do do	do	M. Traynor.....	2 do ...	1 25	2 50
do do do	do	John Howe.....	1 do ...	1 25	1 25
<b>Division No. 4.</b>					
<b>Repairing Air Line Float Bridge; removing same and replacing again.....</b>	do	Wm. Cook.....	7½ days...	1 75	13 12
do do ...	do	R. Chalmers.....	1 do ...	1 50	1 50
do do do	do	J. Cook.....	5 do ...	1 25	6 25

## PAY-LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names	Time.	Rate.	Amount.
<i>Division No. 4.—Con.</i>				\$ cts.	\$ cts.
Repairing Air Line Float Bridge, removing same, &c.....	Dec., 1886.	J. Ryan.....	5 days ...	1 25	6 25
do do ...	do	H. Brennan.....	5 do ...	1 25	6 25
do do ...	do	Wm. Deek.....	6 do ...	1 25	7 50
do do ...	do	J. Major.....	5 do ...	1 25	6 25
do do ...	do	C. Keen.....	5 do ...	1 25	6 25
do do ...	do	E. Sloat.....	5½ do ...	1 25	6 88
do do ...	do	M. Anthes.....	5 do ...	1 25	6 25
do do ...	do	F. Moyer.....	4 do ...	1 25	5 00
do do ...	do	T. J. O'Neil.....	1 do ...	1 25	1 25
do do ...	do	F. Mahager.....	1 do ...	1 25	1 25
do do ...	do	S. Cook, team.....	8½ do ...	3 00	25 50
Helping to attend ferry.....	do	Wm. Bradley.....	21 do ...	1 40	29 40
Building new gates for waste wiers; and placing scows in position and securing them for winter; sheeting passage walls basement of canal office.....	do	N. Morey.....	22½ do ...	2 50	56 87
do do ...	do	P. Shortell.....	14½ do ...	1 75	25 38
do do ...	do	T. Rapsey.....	13 do ...	1 75	22 75
do do ...	do	S. Radcliffe.....	21½ do ...	1 75	38 06
do do ...	do	Chas. Hill, team.....	6½ do ...	3 00	19 50
Watchman, Gate Yard.....	do	J. W. Boyle.....	31 do ...	1 00	31 00
Helping carpenters; culling in from edge of banks, hydraulic race; releasing anchor in and throughout whole length various times night and day.....	do	Thos. O'Neil.....	15 do ...	1 75	} 50 25
do do ...	do	do	16 do ...	1 50	
do do ...	do	Wm. Assil.....	15½ do ...	1 25	19 38
do do ...	do	R. Grant.....	1 do ...	1 25	1 25
do do ...	do	Wm. Chandler.....	2 do ...	1 25	2 50
do do ...	do	J. W. Lynch.....	2 do ...	1 25	2 50
do do ...	do	John Dacey.....	1 do ...	1 25	1 25
do do ...	do	A. W. Bradley.....	1 do ...	1 25	1 25
do do ...	do	Micheal White.....	4 do ...	1 25	5 00
do do ...	do	Robert Nelson.....	1 do ...	1 25	1 25
do do ...	do	Fred. Sherer.....	1½ do ...	1 25	1 88
<i>Dunnville.</i>					
Putting new planks on bridges, &c.....	do	James Edgar.....	9 do ...	1 50	13 50
do do ...	do	Geo. Kerns.....	1 do ...	1 50	1 50
do do ...	do	James Davis.....	3½ do ...	1 25	4 38
do do ...	do	Thos. McDonald, team.....	3 do ...	2 50	7 50
do do ...	do	T. C. Tipton.....	26 do ...	1 50	39 00
Painting Lock Tender houses, Port Maitland; culling and clearing away ice from back of gates; blocking up swing bridges for winter use; storing away lumber and tools, &c.....	do	John Thrush.....	21 do ...	1 50	31 50
do do ...	do	John Taylor.....	2 do ...	1 25	2 50
do do ...	do	Hiram Fite.....	2 do ...	1 25	2 50
do do ...	do	Thos. Bessy.....	6 do ...	1 25	7 50
do do ...	do	C. Fritz.....	4½ do ...	1 25	5 31
do do ...	do	John Bessy.....	3½ do ...	1 25	4 38
do do ...	do	R. G. Murchy, team.....	5 do ...	3 00	15 00
do do ...	do	M. A. Smith.....	5 do ...	3 00	15 00
Clearing out Marshville culvert and filling up rut holes, &c.....	do	John Henderson.....	9 do ...	1 25	11 25
do do ...	do	W. Campbell, team.....	4 do ...	3 00	12 00
do do ...	do	A. Hanna.....	1 do ...	3 00	3 00
					1,069 38



## ACCOUNTS Chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1886.			
Dec. 1-31...	To Coy Bros., St. Catharines—		
	6 fire bricks, 30c. ; 10 fire bricks, 40c.....	0 70	
	41 lbs. $\frac{3}{4}$ inch chain.....	29 64	
	2 latches, 50c. ; 3 pair hinges, 45c.....	0 95	I
	150 lbs. white lead, at 6 $\frac{1}{2}$ c., \$10.13 ; 15 buck saws, at 75c., \$11.25.....	21 38	
			52 67
do 1-31...	James Wilson, Thorold—		
	2 packages cut nails, 70c. ; 71 bolts, 35c. ; 3 pair hinges, at 36c.....	4 61	
	70 lbs. nails, \$2.80 ; 3 locks, at 25c., 75c.....	3 55	
	246 lbs. tarred felt, at 3c., \$7 38 ; screws, 45c.....	7 83	
	3 yards wove wire, at 40c.....	1 20	
			17 19
do 31...	Richard House, St. Catharines—		
	10 lamps repaired, at 12 $\frac{1}{2}$ c., \$1.25 ; 2 oilers, 35c.....	1 95	
	2 cuspadores, \$1.50 ; 1 can, 40c. ; 1 elbow, 20c.....	2 10	
	9 lengths stovepipes, \$1.35 ; 1 scuttle, 75c.....	2 10	
	53 lanterns, at 94c.....	49 82	
	13 hours time, 3 men cleaning office furnace, at 25c.....	3 25	
			59 22
do 1-31...	A. Abbey, Port Robinson—		
	14 lbs. shingle nails, at 4 $\frac{1}{2}$ c., 63c. ; 1 oil can, \$1.....	1 63	
	1 gal. coal oil, 30c. ; salt, 20c. ; 3 pair hinges, \$1.15.....	1 65	
	2 $\frac{1}{2}$ lbs. white lead, 20c. ; 10 lbs. putty, 50c. ; 12 lbs. nails, 48c.....	1 18	
	30 panes glass, 14 by 26, at 20c.....	6 00	
	1 box screws, 30c.....	0 30	
	$\frac{1}{2}$ bag potatoes, 30c. ; bread, 42c. ; salt, 15c.....	0 87	
			11 63
do 1-31...	Wm. V. Garden, Welland—10 spikes, 50c. ; 1 pad lock, 25c.....	0 75	
do 1-31...	John Mathews, Port Colborne—		
	2 hooks and staples, 28c. ; 200 spikes, at 4 $\frac{1}{2}$ c., \$9.....	9 28	
	3 doz. bolts, \$1.50 ; 1 cupboard lock, 38c.....	1 88	
	$\frac{1}{2}$ lb. umber, 6c. ; 1 lb whitening, 5c.....	0 11	
			11 27
do 1-31...	Mrs. Jordon, Port Robinson—52 meals, at 25c.....		13 00
	(Above for men away from home working on pile driver at Port Robinson Bridge.)		
do 3...	Tug "M. A. Bennett," Port Robinson—Breaking ice.....		4 00
do 7...	Tug "H. B. Cooke," Port Colborne—Breaking ice and towing, Foot Bridge.....		10 00
do 1-31...	James Wilson, Merritton—		
	1232 lbs. bolts repaired, at 2 $\frac{1}{2}$ c.....	30 80	
	55 lbs. rag bolts, at 3c.....	1 65	
	422 lbs. screw bolts, at 5c.....	21 10	
	24 lbs. sterling, at 6c.....	1 44	
	285 lbs. castings, at 3 $\frac{1}{2}$ c.....	9 98	
	10 $\frac{1}{2}$ hours time drilling, at 40c.....	4 20	
			69 17
do 1-31...	McCleary & McLean, Thorold—		
	708 feet pine, at \$16 per M, \$11.33 ; 552 feet pine, at \$17 per M, \$9.66.....	20 99	
	64 feet pine, at \$30 per M, \$1.92 ; 16 feet battens, at 2c., 32c.....	2 24	
	12 feet base, at 7c., 84c. ; 30 pickets, at 3c., 90c.....	1 74	
			24 97
do 1-31...	H. Vanderburgh, Allanburgh—		
	23 railway fares and return to Port Dalhousie, at 70c.....	16 10	
	1 do do St. Catharines.....	0 45	
			16 55

## ACCOUNTS chargeable to Welland Canal, Repairs.—Continued.

Date.	Nature of Work.	Amount.	Total.
1886.		\$ cts.	\$ cts.
	<i>Old Welland Canal and Feeder.</i>		
Dec. 1-31...	To Coy Bros., St. Catharines— 1 keg spikes, 100 lbs., at 5c..... 15 nails, 60c.; 3 packages brads, 36c.....	5 00 0 96	5 96
do 1-31...	James Wilson, Thorold— 10 washers, at 12½c., \$1.25; 7 pack. screws, at 40c., \$2.80 5 packages screws, at 45c., \$2.25; 2 locks, \$1.60; black lead, 75c..... ½ gal. varnish, \$1; ¾ gals. lard oil, at \$1, \$3.50 ..... 365 car bolts, at 5c., \$18.25; 1 keg 8 inch nails, \$4..... 9 big glass, at 8c., 72c.; 48 inches chain, at 3c., \$1.44.... 150 lbs. spikes, at 4½c.....	4 05 4 60 4 50 22 25 2 16 6 75	44 31
do 31...	Wm. N. Braund, Dunnville— Galvanized iron chimney top for bridge house..... Sheet iron with hole.....	5 30 0 15	5 45
do 31...	James Rolston, Dunnville— 1 keg nails, \$2.75; 4 pad-locks, \$1.90..... ¾ yards cord, at 40c., \$1.30; 3 axes and handles, at \$1.50, \$4.50; 2 lanterns, \$1.90..... 6 gals. boiled oil, at 80c., \$4.80; 3 gals turpentine, \$3; 2 spades, \$2.80..... 1 can white lead, \$5.25; ½ gal. knotting, \$2; ½ gal. var- nish, \$3.75..... 718 lbs. iron, at 2c., \$14.36; 125 lbs. iron, 3c., \$3.75; graining, 50c..... 8 pair hinges, at 12½c., \$1; 4 lbs. p. blue, at 50c., \$2; 18 lbs. whiting, at 5c., 90c..... 1 gal. machine oil, \$1.30; 1 door lock, 75c..... 90 lbs. chain.....	4 65 7 70 10 60 11 00 18 61 3 90 2 05 5 40	63 91
do 31...	McCleary & McLean, Thorold— 4,184 feet pine, at \$16.00, \$66.94; 6,040 feet pine, at \$16.50, \$99.66..... 512 feet pine, at \$17, \$8.70; 309 feet pine, at \$17.50, \$5.41..... 625 feet pine, at \$35, \$21.88..... 1,384 oak 25, 34.60; 640 feet oak, at \$27, \$17.28 3,085 do 20, 61.70..... 1,030 feet siding, at \$30.....	166 60 14 11 21 88 51 88 61 70 30 90	347 07
do 1-31...	James Wilson, Merritton— 380 lbs. bolts repaired, at 2½c., \$9.50; 2,633 lbs. bolts, at 5c., \$131.65..... 412 lbs. rag bolts, at 3c., \$12.36; 126 lbs. steeling, at 6c., \$7.56..... 60 lbs steels repaired, at 10c., \$6; 60½ lbs. new steels, at 20c., \$12.10..... 2 hours time man on work..... 21 feet gas pipe, at 25c.....	141 15 19 92 18 10 0 80 5 25	185 22
do 31...	Thos. Hastings, St. Catharines—22 yds. cut stone delivered at St. Paul Street Bridge, Old Canal, at \$7.....		154 00
Sept. 20...	Geo. Gibson, P.L.S., St. Catharines— Staking out Canal boundaries near Lock 16, 17 and 18 Old Canal.....	5 00	
do 28...	Staking out hydraulic race.....	5 00	
Oct. 4...	do do.....	5 00	
Nov. 11-12...	Making survey Bradley's property to find quantity of land washed away by hydraulic race, &c., plans of same	10 00	25 00

## ACCOUNTS chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
June 29...	Henry Law, P.L.S., Dunnville—		
Oct. 6...	Survey Boomer and St. John mill site, Dunnville.....	6 00	
do 12...	Survey of embankments.....	6 00	
	Levels on ditch south side feeder, below Dunnville.....	6 00	18 00
Dec. 28...	Richard Leeson, Merritton—1 cord fire wood (gate yard)..		5 50
Sept. 16... }	Charles Henderson, Marshville—		
Dec. 7... }	65 meals, at 25c.....	16 25	
	Horse feed.....	0 50	16 75
	Above for men away from home taking sunken logs, Feeder Canal and Culverts, &c.		
Dec. 1-31...	James Wilson, Merritton—		
	1,500 lbs. castings at 3c.....	45 00	
	18 lbs. brasses at 28c.....	5 04	
	14½ hours time, fitting, drilling and machine work, at 40c.	5 80	55 84
	Total.....		1,217 43

NUMBER of Pay-list, 161. Pay-list in duplicate of Persons employed on the Welland Canal during the month of January, 1887, to pay Carpenters, Laborers, Teams, &c., chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Moving bridge tenders' house from old bridge to new at Welland, and repairing air line float bridge, &c.....	Jan., 1887	Wm. Cook .....	4 days...	1 75	7 00
do do .....	do ...	J. Moyer.....	2 do ...	1 25	2 50
do do .....	do ...	J. Clancey.....	1 do ...	1 25	1 25
do do .....	do ...	Jas. Foster.....	1½ do ...	1 25	1 88
do do .....	do ...	M. Traynor.....	6 do ...	1 25	7 50
do do .....	do ...	Samuel Cook, teams..	2 do ...	3 00	6 00
do do .....	do ...	Jno. Barns do ...	1 do ...	3 00	3 00
Helping surveyor at Port Colborne harbor, and repairs to air line float bridge, &c.....	do ...	John Cook.....	3½ do ...	1 25	4 38
do do .....	do ...	John Stevens. ....	4½ do ...	1 25	5 63
do do .....	do ...	Jas. Dunlap.....	4 do ...	1 25	5 00
do do .....	do ...	Jerry Chase.....	½ do ...	1 25	0 63
Cleaning snow and ice out of the culverts, &c.....	do ...	Nelson Higgins.....	5 do ...	1 25	6 25
do do .....	do ...	Richard Higgins.....	9½ do ...	1 25	11 88
do do .....	do ...	Daniel O'Leary.....	4½ do ...	1 25	5 63
do do .....	do ...	R. Stevenson.....	3 do ...	1 25	3 75
Opening up ditches, &c.....	do ...	John Howe.....	2 do ...	1 25	2 50
do do .....	do ...	Geo. Spooner.....	3 do ...	1 25	3 75
Watchman, shop and yard, Port Dalhousie.....	do ...	Oscar Sharp.....	31 do ...	1 25	38 75
Watchman, pattern storehouse, lock 12.....	do ...	John McMillan.....	16 do ...	1 20	19 00
do do .....	do ...	Henry Hughes.....	15 do ...	1 20	18 00



## PAY-LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
<b>Old Welland and Feeder Canal—</b>					
Making and putting up temporary bridge, Marlatt's Crossing; taking down old decayed swing bridge and commencing new one in line thereof.....	Jan., 1887.	F. T. Walton.....	23 days...	2 50	57 50
do do .....	do	S. R. Bradley.....	22½ do ...	1 75	39 38
do do .....	do	D. S. Walton.....	22½ do ...	1 75	39 38
do do .....	do	Edward Smith.....	19 do ...	1 75	33 25
do do .....	do	Jacob Wilkerson.....	2 do ...	1 00	3 50
do do .....	do	Daniel Kelley, team...	1½ do ...	3 00	4 50
do do .....	do	F. T. Walton do ...	5½ do ...	3 00	16 50
<b>Hydraulic race—Cutting ice from the edges of banks and removing anchor ice throughout the whole length, night and day ...</b>					
do do .....	do	Thos. O'Neil .....	31 do ...	1 50	46 50
do do .....	do	Wm. Assell .....	15½ do ...	1 25	19 38
do do .....	do	Tim. Sullivan .....	12 do ...	1 25	15 00
do do .....	do	Fred. Sherer .....	3½ do ...	1 25	4 38
do do .....	do	Geo. Boyle .....	3 do ...	1 25	3 75
do do .....	do	Wm. McClorey .....	4 do ...	1 25	5 00
do do .....	do	James Boyle .....	2 do ...	1 25	2 50
do do .....	do	Michael White .....	2 do ...	1 25	2 50
do do .....	do	Jas. F. Boyle .....	2 do ...	1 25	2 50
do do .....	do	Pat Dargan .....	½ do ...	1 25	0 63
<b>Cutting ice from waste weirs and regulating water at Lock 2....</b>					
do do .....	do	W. H. Charles.....	20 do ...	1 25	25 00
do do .....	do	T. Johnson.....	13½ do ...	1 25	16 88
do do .....	do	John Sullivan.....	13½ do ...	1 25	16 88
<b>Cleaning snow and ashes out of canal office yard, team hauling away, &amp;c.....</b>					
do do .....	do	Thos. Hickey.....	2 do ...	1 25	2 50
do do .....	do	Chas. Hill (team)....	4¾ do ...	3 00	14 25
<b>Dunnville—Building new flood gates for the dam, &amp;c.; repairing old flood gates, &amp;c.....</b>					
do do .....	do	James Edgar.....	22 do ...	1 50	33 00
do do .....	do	John Logan.....	1 do ...	1 50	1 50
<b>Painting and glazing sash for shop.....</b>					
do .....	do	T. C. Tipton .....	4 do ...	1 50	6 00
<b>Removing ice jams from entrances of the waste weirs and dams, &amp;c.</b>					
do do .....	do	John Thrush .....	3 do ...	1 25	3 75
do do .....	do	Hiram Fite.....	3 do ...	1 25	3 75
do do .....	do	James Davis.....	6 do ...	1 25	7 50
do do .....	do	Ed. Webber.....	5 do ...	1 25	6 25
do do .....	do	Thos. Bessey.....	5 do ...	1 25	6 25
do do .....	do	Ira Bessey .....	4 do ...	1 25	5 00
<b>Inspector of piles, Port Dalhousie dam.....</b>					
do .....	do	H. Vanderburgh.....	1 month...	75 00	75 00
					674 14

## ACCOUNTS chargeable to Welland Canal, Repairs.

Date.	Nature of Works.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Jan. 6-26...	To Geo. Gibson, P.L.S., St. Catharines— 8 days making survey of Port Colborne Harbor; taking levels and making plan of same and tracing, also plotting and calculating earthwork, at \$5.....	40 00	
	Railway fares.....	2 40	
	Hotel bills.....	2 00	
1886.			44 40
Oct. 22...	John Battle, Thorold—3 brls. cement, at \$1.50.....		4 50
Dec. 22...	Richard Leeson, Merritton—2 cord. hardwood for watchman, at \$5.50 .....	11 00	
July 10-31	George Lloyd, St. Catharines— Repairing pitch ladle, 35c.; 3½ ft. iron pipe, at 40c., \$1.40.....	1 75	
	2 3-in. caps, \$1; 1 nozzle and couplings, \$1.50.....	2 50	
	6 ¾-in. sockets, 75c.; time cutting pipes, 50c.....	1 25	
	1 gauge glass, 35c.; 2 rubber washers, 10c.....	0 45	
	¾ sheet copper, 30c.; 3 ¾-in. nipples and elbows, 50c.....	0 80	
	1 valve, \$1.75; 1 tran l. nut, 50c.; 4 chimneys, \$1.60.....	3 85	
Aug. 19-25 ..	1 foot iron pipe, 13c.; 2 nipples, 25c.; 3 galvanized collars, 75c.....	1 13	
	3 burner, 60c.; repairing lanterns, 25c.....	0 83	
	3 hours time for 1 man, at 25c.....	0 75	
Sept. 6-23...	1 tin box, 40c.; 1 gauge glass, 50c.; 1½ lbs. packing, \$1.50.....	2 40	
	1 pot, 40c.; 2 pat. cocks, \$1; 1 galv. iron cover, \$2.50...	3 90	
Oct. 8-30...	4½ lbs. rubber packing, at 40c., \$1.70; 1 oil can and pan, 60c.....	2 30	
	1 pail, 60c.; repairing gas pipe, 65c.; 1 ¾-in., 25c.....	1 50	
	1 box, 15c.; mica, 25c.; 1 reducing locket, &c., 23c.....	0 63	
Nov. 23-30...	1 flue cleaner, \$3; 1 elbow, 15c.....	3 15	
	2 large tin lamps and burners.....	1 50	
	6 E. & B. lanterns, \$6.75; 1 globe, 30c.....	7 05	
Dec. 1-15...	1 hand-heater, \$10; 12½ large pipe, \$1.90.....	11 90	
	1 elbow, 25c.; 1 line platform, \$1.25; 1 coal scuttle.....	2 50	
	1 shovel, 25c.; 1 damper, 25c.; 1 collar, 10c.....	0 60	
	1 globe, 20c.; 3 lbs. rubber packing, at 40c., \$1.20; 4 feet iron pipe, 60c.....	2 00	
	1 dust-pan, 20c.; pot cover, 10c.; 1 pan, 25c.; 2 bread pans, 65c.....	1 20	
	5 lbs. line, 50c.; 1 elbow, 25c.; 1 large pipe, 15c.; clout nails, 15c.....	1 05	
	Covering sky-light.....	0 25	
Jan. 31...	Frank Ott, Welland— 24 lbs chains, at 5c., \$1.20; 2 ice chisels, at 75c. \$1.50..	2 70	
	1 pole, 25c.; 6 crowbars repaired, at 2½c., 15c.....	0 40	
do 31...	Roger Miller, St. Catharines— 12 3-inch gate valves, at \$11 50.....	38 00	
	197 feet 3-inch pipe, at 44c.....	86 68	
	4 3-inch crosses, at \$1.10, \$4.40; 3 3-inch nipples, at 65c., \$1 95.....	6 35	
	12 3-inch elbows, at 60c., \$7.20; 26 1-inch tees, at 15c, \$3.90 .....	11 10	
	2 Unions, 60c.; 27 feet 1-inch pipe, at 8c., \$2.16 .....	2 76	
	7½ days' time for man coupling and fitting pipes, at \$2 .....	15 00	
	Above for fitting and attachments, pipe valves, &c., to pumps on pontoons to facilitate filling and emptying water tight compartments quickly.		259 88
Nov. 23...	To tug "James Norris," St. Catharines— Towing scow from old to new canal .....	3 00	
do 24...	do 3 rafts do .....	6 00	
	do schooner "Mary" from Lock to Lock 2.....	4 00	
			13 00

ACCOUNTS chargeable to Welland Canal, Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
	<i>Old Welland and Feeder Canal.</i>		
Jan. 1-31...	To James Wilson, Thorold— 224 lbs. spikes, at 4½c., \$10.08; 2 gallons bd. oil, at \$1, \$2.....	12 08	
	2 axes and handles, \$2.50; 4 packages screws, at 45c., \$1.80.....	4 30	
	1½ lbs. glue, 45c.; 1 paint brush, 75c.....	1 20	
	2 gallons coal oil, 56c.; 16 lbs. white lead, at 10c., \$1.60.....	2 16	
	40 lbs. nails, at 5c.....	2 00	
			21 74
do 1-31...	James Rolston, Dunnville— 472½ lbs. iron, at 2c., \$9.45; 87 lbs. iron, at 3c., \$2.61	12 06	
	278 lbs. ½-inch chain, at 5c.....	13 90	
	2 axes, \$2.50; 1 handle, 20c.; 66 asst. bolts, \$2.41....	5 11	
	2 lbs. washers, 20c.; 17 lbs. small chain, \$1.05; 105 lbs. ¾-chain, at 6c., \$6.30.....	7 55	
	4 files, 90c.; 35 lbs. Swede iron, at 6c., \$2.10; 2 tins tar, 30c.....	3 30	
	1 saw set, \$1.25; 1 l ft. 6 in. handsaw, \$4.50.....	5 75	
	4-inch steel nails, 15c.; 7½ lbs. nuts, at 10c., 75c.; 1 pump sucker, \$1.25.....	2 15	
	20 lbs. ¼-inch steel nails, at 12½c., \$2.56; repairs to plough, &c., \$1.....	3 50	
			53 32
do 1-31...	James Wilson, Merritton— 5,031 lbs. castings, at 3c.....	150 96	
	55 lbs. brasses, at 28c.....	15 40	
	29 hours time drilling, fitting and machine work, at 40c..	11 60	
			177 96
Jan. 1-31...	McCleary & McLean, Thorold— 6,583 feet pine, at \$16, \$105.33; 640 feet pine, at \$17, \$10.88.....	116 21	
	520 feet pine, at \$18, \$9.36; 3,223 feet pine, at \$21, \$67.68	77 04	
	26 do 3c.....	0 78	
	1,240 feet oak, at \$25, \$31; 2,628 feet oak, at \$28, \$73.58	104 58	
	578 do \$29.....	16 76	
	150 feet ash, at \$30.....	4 50	
			319 87
Nov. 15-16...	Tug George Douglas, Thorold—Pulling sunken scow out of Port Maitland Lock.....		25 00
Nov. 15-16...	William Martin, Port Maitland—30 meals supplied to men engaged in removing scow out of Port Maitland Lock.....		7 50
Jan. 1-31...	James Wilson, Merritton— 125 lbs. screw bolts, at 5c.....	6 25	
	628 do repaired, at 2½c.....	15 70	
	389 lbs. turn buckles, repaired, at 3c.....	11 67	
	90 lbs. steel chisels, at 20c.....	18 00	
	6 hours forge work, at 40c.....	2 40	
			54 02
Jan. 31...	F. T. Walton, Thorold—Extra services and overtime in devising and completing two vessels, measuring gauges, and putting them down to Ports Colborne and Dalhousie.....		50 00
Jan. 1-31...	Henry Vanderburgh, Allanburgh—25 railway fares from Allanburgh to Dalhousie and returning.....		17 50
			1,118 06



**PAY-LIST** in duplicate of Persons employed on the Old Welland and Feeder Canal during the month of February, 1887, to pay Carpenters, Laborers, Teams and accounts, chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Repairing waste weir at Locks 2 and 3, and sundry repairs at Canal office; also repairing wheelbarrows, &c.....	Feb., 1837.	Nathan Morey .....	19½ days...	2 50	48 75
do do .....	do	P. Shortell.....	16 do ...	1 75	28 00
do do .....	do	S. Radcliffe.....	8 do ...	1 75	14 00
do do .....	do	Thos. Rapsey.....	5 do ...	1 75	8 75
do do .....	do	Chas. Hill, team.....	10 do ...	3 00	30 00
Watchman, gate, yard and shop, St. Catharines.....	do	J. W. Boyle... { Jan., 31 } 59 dys		1 00	59 00
Cutting ice from edges of banks, hydraulic race, &c.; removing anchor ice throughout whole length, night and day; also repairing leak in bank of canal at Lock 4, waste weirs, &c.; faced up embankment near Empire Wells with stone.....	do	Thos. O'Neil.....	27 days.....	1 50	40 50
do do .....	do	Wm. Assell.....	14 do ...	1 25	17 50
do do .....	do	James Boyle.....	6½ do ...	1 25	8 13
do do .....	do	Wm. McClorey.....	2 do ...	1 25	2 50
do do .....	do	James F. Boyle.....	2 do ...	1 25	2 50
do do .....	do	Robt. Wilson.....	14½ do ...	1 25	18 13
do do .....	do	Geo. Boyle.....	8½ do ...	1 25	10 63
Cutting ice from waste weirs, Lock 2; helping to remove ice, and regulating water during freshets, &c.....	do	W. H. Charles.....	10 do ...	1 25	12 50
do do .....	do	T. Johnson.....	12 do ...	1 25	15 00
do do .....	do	John Sullivan.....	12 do ...	1 25	15 00
do do .....	do	Geo. Weaver.....	1 do ...	1 25	1 25
do do .....	do	Wm. Altoft.....	3 do ...	1 25	3 75
do do .....	do	Peter Garrick.....	4½ do ...	1 25	5 63
do do .....	do	Michael Murray.....	3 do ...	1 50	4 50
do do .....	do	John Weaver.....	2½ do ...	1 25	3 13
Repairing leaks in banks of canal at Locks 15, 17, 23 and 25, waste weirs; also repairing roadway, Lock 17.....	do	James Hamilton.....	16 do ...	1 75	28 00
do do .....	do	John Durdas.....	11 do ...	1 25	13 75
do do .....	do	Wm. Gibson.....	15 do ...	1 25	18 75
do do .....	do	F. Dosical.....	15½ do ...	1 25	19 38
do do .....	do	A. Bradley.....	15 do ...	1 25	18 75
do do .....	do	P. Giffin.....	7 do ...	1 25	8 75
do do .....	do	M. Cafferty.....	4 do ...	1 25	5 00
do do .....	do	Wm. Wells.....	4 do ...	1 25	5 00
do do .....	do	Robt. Pew.....	1 do ...	1 25	1 25
do do .....	do	Ham. Page, team.....	4½ do ...	3 00	13 50
do do .....	do	John Bradley.....	do 6½ do ...	3 00	19 50
Putting in foundation for new swing bridge and erecting new bridge in place of old one, Mar- latt's Crossing.....	do	F. T. Walton.....	24 do ...	2 50	60 00
do do .....	do	S. R. Bradley.....	24 do ...	1 75	42 00
do do .....	do	D. S. Walton.....	20 do ...	1 75	35 00
do do .....	do	Ed. Smith.....	23½ do ...	1 75	41 13
do do .....	do	F. Shuman.....	2 do ...	1 50	3 00
Painting frame work of new swing bridge.....	do	Thos. Granville.....	9 do ...	1 75	15 75
do do .....	do	D. Granville.....	9 do ...	1 75	15 75
Team .....	do	F. T. Walton, team...	9½ do ...	3 00	28 50
Dunnville—Making new wheelbarrows, &c.....	do	Jas. Edgar.....	18 do ...	1 50	27 00

**PAY-LIST** in duplicate of Persons employed on the Old Welland and Feeder Canal,  
&c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Cutting ice from the entrance of waste weirs, also running drift wood and rubbish from culverts, &c.....	Feb., 1887.	E. Webber.....	7½ days...	1 25	9 38
do do .....	do ...	Jas. Davis.....	6½ do ...	1 25	8 13
do do .....	do ...	Thos. Bessey.....	6½ do ...	1 25	8 13
do do .....	do ...	Ira. Bessey.....	8½ do ...	1 25	10 00
do do .....	do ...	Jno. Trush.....	1½ do ..	1 25	1 83
Teams hauling away drift wood and taking to and from work...	do ...	R. G. Murdy, team....	3 do ...	2 50	7 50
do do .....	do ...	Thos. McDonald, team	2 do ...	2 50	5 00
Inspector of Piles, Port Dalhousie Dam.....	do ...	H. Vanderburgh.....	1 month..	75 00	75 00
<i>Division No. 1.</i>					
Clearing snow and ice out of back ditches, &c.....	do ...	F. Smith.....	6 days...	1 25	7 50
do do .....	do ...	C. B. Hare.....	3 do ...	1 25	3 75
do do .....	do ...	R. Edgraft.....	3 do ...	1 25	3 75
do do .....	do ...	S. Duffin.....	2 do ...	1 25	2 50
do do .....	do ...	P. Oneth.....	3 do ...	1 25	3 75
do do .....	do ...	Geo. Spooner.....	4½ do ...	1 25	5 63
<i>Division No. 2 and 3.</i>					
Clearing snow and ice out of back ditches, &c.....	do ...	Jno. Cook.....	2 do ...	1 50	3 00
do do .....	do ...	Jacob Cook.....	2½ do ...	1 25	3 13
do do .....	do ...	M. Trayner.....	4 do ...	1 25	5 00
do do .....	do ...	Jno. Moyer.....	3 do ...	1 25	3 75
do do .....	do ...	F. Moyer.....	2 do ...	1 25	2 50
do do .....	do ...	R. Stevenson.....	7½ do ...	1 25	9 38
Watchman, Port Dalhousie shop..	do ...	Oscar Sharp.....	28 do ...	1 25	35 00
do Pattern House, Lock 13.....	do ...	Jno. McMillan.....	14 do ...	1 20	16 80
do do .....	do ...	Henry Hughes.....	14 do ...	1 20	16 80
					1,016 17

## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Jan. 1-21...	To George Lloyd, St. Catharines— 20 lbs. lead pipe, at 10 cts., \$2; 2 nipples, 40 cts..... 1 brass cock, \$1.75; repairing gas pipe, 40 cts..... 8 hours' time for man fitting pipe, at 25 cts.....	2 40 2 15 2 00	
1886.	R. H. Smith & Co., St. Catharines— Setting and filing cross-cut saw ..... G. & H. 13-inch cross saw .....	0 75 0 81	6 55 1 56
Feb. 3...	T. Healey, St. Catharines—1 pr. hip rubber boots.....		5 50
do 9...	Henry Carlish, St. Catharines—2½ yds. window Holland, at 40 cts .....		0 90
do 25...	McCleary & McLean, Thorold—1,000 ft. pine.....		17 00
do 28...	James Wilson, Thorold— 800 steel set screws, at 15 cts ..... 12 steel taps.....	120 00 14 00	134 00
do 1-28...	Henry Vanderburgh, Allanburg—23 railway fares from Allanburg to Port Dalhousie and return, at 70 cts.....		16 10
do 28...	Thos. Hastings, contractor, &c., St. Catharines— Mason, 2½ days, at \$3..... Helper, 1½ do \$1.50..... 3 brls. mortar, \$3; 50 brick, 50 cts..... Hauling material.....	8 25 2 63 3 50 0 50	14 88
Feb. 28...	McCleary & McLean, Thorold— 1170 ft. pine, at \$16 ..... 256 do 18, \$4 61; 26 ft. pine, at \$30, 78c..... 290 ft. oak, at \$25, \$7.25; 293 ft. oak, at \$29, \$8.50..... 1 hour's machine ripping .....	18 32 5 39 15 75 0 40	40 26
do 1-28...	James Wilson, Merriton— Repairing bolts, 1,200 lbs., at 2½c..... do rods, 256 lbs., at 2c..... New straps, 72 lbs., at 4c..... Spike bolts (new), 18 lbs., at 3c..... Screw do 3,432 lbs., at 5c..... Steeling picks, &c., 76, at 6c..... New steel bars, 88, at 20c.....	30 00 5 12 2 88 0 54 171 60 4 56 17 60	232 30
do 1-28...	James Wilson, Merriton— 7,043 lbs. castings, at 3½c..... 1 new valve, complete .....	246 50 56 50	365 40
do 1-28...	James Wilson, Thorold— 1 brush-broom, 75c.; 24 lb. chain, at 7c., \$1.82..... 4 galls. B. oil, at \$1, \$4; 6 pick handles, at 25c., \$1.50... Paper rubbers and pencils, \$1; 8 drop black, at 25c., \$2... 150 lbs. white lead, at 8c., \$12; 2 galls. turpentine, \$2... Paid railway fares, Pt. Colborne and return, for foreman	2 57 5 50 3 00 14 00 2 00	27 07
do 9...	Richard Leeson, Merriton— 1 cord hard wood for watchman .....		5 50
do 1-28...	James Rolston, Dunnville— 1 pair knobs, 50c.; 1 basket, 50c.; 1 shovel, \$1 ..... 10 lbs. nuts, at 4c., 40c.; 6 lbs. chain, at 8c., 48c.; 50 c. c. bolts, \$1.54 ..... 122 lbs. Manilla rope, at 12½c., \$15.25; 4 lbs. small line, at 15c., 60c. .... 2 gross screws, 75c.; 25 lbs. steel, at 4c., \$1..... 53 lbs. band iron, at 3c., \$1.59; 121 lbs. corn iron, \$2.42	2 00 2 42 15 85 1 75 4 01	26 03



ACCOUNTS Chargeable to Welland Canal—Renewals and Repairs—*Concluded.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
Jan. 20-27...	John Shickluna, St. Catharines— Horse and buggy .....		2 00
Feb. 3-28...	Wm. Swartz, Byng— 64 lbs. staples and bolts, at 7c., \$4.48; 6 cant hooks, at 50c., \$3.....	7 48	
	112 clips for gates, at 3c. ....	3 36	
	Sharpening 2 bars, at 10c. ....	0 20	
do 1-28...	McCleary & McLean, Dunnville—		11 04
do 28...	2,040 ft., 6 x 12 in., and 2 x 12 in., oak, at \$25.....	51 00	
	2,000 ft. 2-in. oak plank, at \$20.....	40 00	
	Chatfield & Neelon, St. Catharines—		91 00
	6 ft. pipe, at 10c., 60c.; $\frac{1}{2}$ doz. hose clip, 25c. ....	0 85	
	1 cast sink, \$2.50; 1 pr. sheet rubber, 10c.....	2 60	
			3 45
			1,000 54

NUMBER of Pay-list, 167. Pay-list in duplicate of Persons employed on the Old Welland Canal and Feeder during the month of March, 1887, to pay Carpenters, Laborers, Teams, &c., chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Putting in two new bents and two new wings and new tops on bridge between canal and adjoining ponds, and taking out brace of old bents and putting in new planking where required to support embankments, &c...	Mar., 1887	Nathan Morey.....	29 days...	2 75	79 75
do do .....	do	P. Shortell.....	26½ do ...	2 00	53 00
do do .....	do	S. Radcliffe.....	26½ do ...	2 00	53 00
do do .....	do	T. Rapsey.....	25½ do ...	2 00	51 00
do do .....	do	W. H. Charles.....	25½ do ...	2 00	51 00
do do .....	do	Chas. Hill, team.....	25 do ...	3 00	75 00
do do .....	do	J. W. Boyle.....	31 do ...	1 00	31 00
Watchman, gate yard.....	do				
Laborers—Excavating earth at each end of new bridge near Weavers Point, to allow carpenters to re-build abutments; repairing towpath and bank levels 1 and 2.....	do	Thos. O'Neil.....	31½ do ...	1 75	55 12
do do .....	do	Wm. Assell.....	15½ do ...	1 25	19 38
do do .....	do	Robt. Wilson.....	26 do ...	1 25	32 50
do do .....	do	G. W. Boyle.....	20 do ...	1 25	25 00
do do .....	do	Michael White.....	24½ do ...	1 25	30 63
do do .....	do	Wm. McClorey.....	11½ do ...	1 25	14 38
do do .....	do	Alex. Walker.....	2½ do ...	1 25	3 13
do do .....	do	Tim Sullivan.....	20 do ...	1 25	25 00
do do .....	do	T. Johnson.....	18 do ...	1 25	22 50
do do .....	do	Jno. Sullivan.....	18½ do ...	1 25	23 13
do do .....	do	James Boyle.....	10 do ...	1 25	12 50
Watching water, Lock 2.....	do	John Weaver.....	8½ do ...	1 25	10 63
do do .....	do	Peter Weaver.....	8½ do ...	1 25	10 63
Teams .....	do	Jno. Bradley.....	2 do ...	3 00	6 00
do .....	do	Ham Page.....	3 do ...	3 00	9 00
Quarrying out stone for spring repairs, &c.....	do	Jas. Hamilton.....	27 do ...	1 75	47 25
do do .....	do	Arthur Bradley.....	23½ do ...	1 25	29 38
do do .....	do	Jas. Faywell.....	21 do ...	1 25	26 25
do do .....	do	Wm. Gibson.....	26½ do ...	1 25	33 13
do do .....	do	F. Dosical.....	23 do ...	1 25	28 75
do do .....	do	Ab. Bradley.....	20 do ...	1 25	25 00
do do .....	do	Ed. McLaughlin.....	10½ do ...	1 25	13 13
do do .....	do	Martin Nestor.....	10½ do ...	1 25	13 13
do do .....	do	Jerry Laughy.....	21 do ...	1 25	26 25
do do .....	do	Jas. Reynard.....	15 do ...	1 25	18 75
do do .....	do	A. W. Bradley.....	2½ do ...	1 25	9 38
do do .....	do	Clarke Dennis.....	8½ do ...	1 25	10 63
do do .....	do	Lewis Tenbrook, team	8 do ...	3 00	24 00
Carpenters — Putting up new swing bridge over Canal at Marlatts Crossing; building new approaches to same; framing new valves for waste weirs, Lock 25.....	do	F. T. Walton.....	27 do ...	2 75	74 25
do do .....	do	S. R. Bradley.....	27 do ...	2 00	54 00
do do .....	do	D. S. Walton.....	27 do ...	2 00	54 00
do do .....	do	E. Smith.....	24 do ...	2 00	48 00
do do .....	do	J. Brenan.....	26½ do ...	1 25	33 13
do do .....	do	N. Higgins.....	25½ do ...	1 25	31 88
do do .....	do	Angus Fox.....	2 do ...	1 25	2 50
do do .....	do	E. Higgins.....	2 do ...	1 25	2 50
do do .....	do	F. T. Walton, team.....	14 do ...	3 00	42 00
do do .....	do	John Coyle do .....	7 do ...	3 00	21 00

PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Name.	Time.	Rate.	Amount.
	1887.			\$ cts.	\$ cts.
Dunnville—Repairing covering of the bridges, and repairing lock gates, making punts, &c.....	March .....	James Edgar.....	19½ do ...	1 50	29 25
do do do .....	do .....	Chas. Trity.....	5½ do ...	1 50	8 25
do do do .....	do .....	R. Mitchell.....	6 do ...	1 50	9 00
Removing driftwood, rubbish and ice from entrance of waste weirs, &c.....	do .....	John Thrush.....	16½ do ...	1 25	20 63
do do do .....	do .....	Ira Bessey.....	7 do ...	1 25	8 75
do do do .....	do .....	Thos. Bessey.....	2½ do ...	1 25	3 13
do do do .....	do .....	T. McDonald, team...	2½ do ...	2 50	6 25
Cutting up old lock gates and taking ironwork off, and storing same away; repairing swing bridge at Lock 1, old Canal....	do .....	John Paxton .....	27 do ...	1 50	40 50
do do do .....	do .....	Thos. Williams.....	26½ do ...	1 25	33 13
do do do .....	do .....	George Howe.....	27 do ...	1 25	33 75
do do do .....	do .....	Frank Darby.....	25 do ...	1 25	31 25
do do do .....	do .....	Phil. Ohnith.....	27 do ...	1 25	33 75
Watchmen, shop and yard, Port Dalhousie, pattern house, Lock 13.....	do .....	Oscar Sharp.....	31 do ...	1 50	46 50
do do do .....	do .....	John McMillan.....	15 do ...	1 20	18 00
do do do .....	do .....	Henry Hughes.....	16 do ...	1 20	19 20
Repairing wheelbarrow.....	do .....	Ed. Smiley.....	13 do ...	2 00	26 00
Inspector piles and dams, Port Dalhousie.....	do .....	H. Vanderburgh .....	1 month..	75 00	75 00
Driving piles along approach, Port Robinson bridge.....	do .....	William Tinlin.....	3 days...	2 25	6 75
do do do .....	do .....	Alfred Tinlin.....	2 do ...	1 50	3 00
do do do .....	do .....	John Sutton .....	2 do ...	1 50	3 00
do do do .....	do .....	John Sutton, horse....	2 do ...	1 50	3 00
Carpenter sharpening piles, &c....	do .....	Benjamin Baker.....	1 do ...	2 00	2 00
do do do .....	do .....	R. Jackson .....	1 do ...	2 00	2 00
do do do .....	do .....	Wm. Abbey.....	1 do ...	1 50	1 50
Opening bridges and ferry to allow contractors' tugs, &c., to pass through.....	do .....	James Edmonds....	6 do ...	1 25	7 50
do do do .....	do .....	George Thompson....	6 do ...	1 25	7 50
do do do .....	do .....	Robt. Stevenson.....	10 do ...	1 25	12 50
<i>Division No. 4.</i>					
Setting floats in place; removing float bridge, Air Line Ferry, and pulling ferry scow in place and clearing out back ditches, east side canal, &c.....	do .....	Jacob Cook.....	8 do ...	1 25	10 00
do do do .....	do .....	John Cook.....	4½ do ...	1 25	5 63
do do do .....	do .....	James Dunlap.....	2½ do ...	1 25	3 13
do do do .....	do .....	Wm. Decks.....	4 do ...	1 25	5 00
do do do .....	do .....	E. Bonaberg.....	5 do ...	1 25	6 25
do do do .....	do .....	R. Simpson.....	6 do ...	1 25	7 50
do do do .....	do .....	Jerry Brennan.....	3½ do ...	1 25	4 38
do do do .....	do .....	John Moyer.....	4 do ...	1 25	5 00
do do do .....	do .....	Frank Moyer.....	4 do ...	1 25	5 00
do do do .....	do .....	M. Anthes.....	2 do ...	1 25	2 50
do do do .....	do .....	Isaac Shisler .....	1 do ...	1 25	1 25
do do do .....	do .....	M. Traynor.....	2 do ...	1 25	2 50
Caulking ferry scow .....	do .....	R. Gillis .....	1½ do ...	2 00	3 00
do .....	do .....	Sam Cook, team.....	2 do ...	3 00	6 00
					1,919 80



## ACCOUNTS chargeable to Welland Canal—Repairs.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
January 1 } March 31 }	To Coy Bros., St. Catharines— 1 anvil, 103 lbs., at 12½c..... 5 galls. lard oil, at \$1, \$5; 1 can, 75c..... 1 do castor oil, \$1.60; 5 bastard files, \$2.70..... 18 sheets emery paper, at 5c., 90c.; 1 gall. boiled oil, 80c.. ¾ gall. turpentine, 38c.; 2 paint brushes, \$3 50..... 224 lbs. spikes, at 5c., \$11.20; ¼ doz. shovels, \$7.50..... 6 picks, at \$1, \$6; 6 pick handles, at 20c., \$1.20..... 12 coffee sacks, \$2.40; 2 ratch drills, \$20..... 211 lbs. manilla rope, at 15c.....	12 88 5 75 4 30 1 70 3 88 18 70 7 20 22 40 31 65	108 46
Mar. 1-31...	James Wilson, Thorold— 6 padlocks, at 50c., \$3; 6 hasp staples, 60c..... 10 shovels, at \$1.75, \$17.50; 3 forks, at \$1.25, \$3.75..... 1 lime pail, 50c.; 20 lbs. tarred line, at 15c., \$3..... 3 picks, at \$1, \$3; 3 pick handles, 75c..... 3 yards woven wire, \$1.50; 1 package brads, 5c.....	3 60 21 25 3 50 3 75 1 55	33 65
January 1 } March 31 }	John Mathews, Port Colborne— Drawer lock, 40c.; 1 rim lock, 40c.; package brads, 13c.. 600 lbs. coal, \$1.80; 1 gall. turpentine, \$1; 1 bill, 22c.. 2 galls. boiled oil, \$1.60; 22 lbs. white lead, at 7c., \$1.54 1 door knob and screws, 23c.; 3 lbs. manilla rope, 38c...	0 93 3 02 3 14 0 61	7 70
do 1-31...	James Wilson, Merritton— 192 lbs. screw bolts, at 5c..... 20 do spike rep., at 1c..... 2 do steel, at 20c..... 285 do bridge castings, at 3½c..... 38 hrs. boring and fitting, at 40c.....	9 60 0 20 0 40 9 98 15 20	35 38
do 1-31...	Henry Vanderburgh, Allanburgh, 26 railway fares to Port Dalhousie and return, at 70c.....		18 20
<i>Old Welland Canal and Feeder.</i>			
February 1 } March 31 }	To Coy Bros., St. Catharines— 1 snow shovel, 60c.; 2 thumb latches, 30c.; 1 pair butts, 12c..... 2 lbs. wrought nails, 20c.; shellac, 25c.; sash tool, 20c.. 1½ gals. mixed paint, \$2.50; 2 lbs. putty, 10c.; 6 lights glass, 88c..... 640 ft. wire sash cord, at 4c..... 2½ lbs. steel, 38c.; hooks and eyes, 25c.; emery cloth, 48c..... Gross screws, 45c.; 8 coffee sacks, \$1.60; 15 lbs. wrought nails, \$1.20..... 4 kegs blasting powder, \$16; 200 ft. fuse, \$4..... 448 wrought spikes, at 5c, \$22.40; 1 boring machine, \$9.50..... 2 ship augers, \$3.80; 1 buck saw, 75c.....	1 02 0 65 3 48 25 60 1 11 3 25 20 00 31 90 4 55	91 56
Mar. 1-31...	James Wilson, Thorold— 6 pick handles, \$1.50; 17 lbs. washers, at 12½c., \$2.13; 1 axe handle, 25c..... 12 files, \$3.15; 1 hand axe, \$1 25; 1 padlock, 50c..... 1 gall. coal oil, 25c.; 74 wood screws, at 5c., \$3.70..... ½ bale oakum, \$5..... Supplies for Government scow and men— 5 lbs. coffee, \$1.50; 5 lbs. tea, \$2.50; 20 lbs. salt pork, \$2; 12 cabbages, 60c..... 27½ lbs. ham, at 15c., \$4.13; 25½ lbs. beef, at 10c., \$2.55; 28 lbs. sugar, \$2..... 10 lbs. salt, 10c.; 1 lb. mustard, 40c.; 2 bars soap, 50c; 1 gall. vinegar, 40.....	3 88 4 90 3 95 2 50 6 60 8 68 1 40	

Accounts chargeable to Welland Canal, Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Mar. 1-31...	To James Wilson, Thorold—		
	1 gall. syrup, 80c.; 12 lbs. butter, \$3; 10 lbs. rice, 50c.;		
	10 lbs. cod fish, 80.....	5 20	
	2 doz. herrings, 50c.; 3 bush. potatoes, \$2.40; 1 bush.		
	turnips, 35c.....	3 25	
	12 loaves bread, at 11c., \$1.32; 1 lb. pepper, 30c; 15		
	lbs. biscuits, at 10c., \$1.50.....	3 12	
	1½ bush. green apples, \$1.20; 1½ bush. dried apples, \$1....	2 20	
			45 68
do 1-31...	James Rolston, Dunnville—		
	215 lbs. wrought spikes, at 5c., \$10.75; 4 gross screws,		
	\$1.55.....	12 30	
	230 lbs. common iron, at 2c., \$4.60; 1 tape line, \$3 .....	7 60	
			19 90
do 31...	R. H. Smith, & Co., St. Catharines—2 cross-cut saws.....		5 00
do 30...	Welland Vale Manufacturing Co., St. Catharines—Repair-		
	ing and straightening rods .....		2 00
do 31...	McCleary & McLean, Thorold—		
	11,614 ft. pine, at \$16.....	185 84	
	2,181 do at \$18 .....	39 26	
	33 do at \$30 .....	0 99	
	1,115 ft. oak, at \$25.....	22 88	
	590 do at \$27.....	15 93	
	236 do at \$28.....	6 61	
	254 do at \$29.....	7 37	
			283 86
do 31...	James Wilson, Merritton—		
	265 lbs. straps repaired, at 2c.....	5 30	
	310 lbs bolts do at 2½.....	7 52	
	465 lbs. rag bolts (new), at 3c.....	13 95	
	394 lbs. strap and plates (new), at 4c.....	15 76	
	1,603 lbs. screw bolts (new), at 5c.....	80 15	
	174 lbs. bar steeling, at 6c.....	10 44	
	54 lbs. bar steel (new), at 20c.....	10 80	
	Foundry work—		
	624 lbs. castings, at 3½c.....	21 84	
	180½ hrs. time drilling, boring, filing and machinists,		
	at 40c .....	72 20	
			237 96
			889 35

**PAY-LIST** in duplicate of persons employed on the Welland Canal and Feeder during the month of April, 1887, to pay Carpenters, Laborers, Teams, and accounts, chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Completing new tow path bridge below Lock 2; driving pile for and building temporary bridge with footpath across old canal while St. Paul St. Bridge roller abutment, north end, was taken down preparative to being rebuilt with rock face ashlar masonry.....	April, 1887	N. Morey, forman.....	31 $\frac{1}{2}$ days...	2 75	85 94
do do ...	do	P. Shortell.....	22 $\frac{1}{2}$ do ...	2 00	44 50
do do ...	do	S. Radcliffe.....	31 do ...	2 00	62 00
do do ...	do	T. Rapsey.....	28 $\frac{3}{4}$ do ...	2 00	57 50
do do ...	do	W. H. Charles.....	19 $\frac{3}{4}$ do ...	2 00	39 50
do do ...	do	W. McClorey.....	9 do ...	1 50	13 50
do do ...	do	R. Bradley.....	5 do ...	1 50	7 50
do do ...	do	C. W. Bradley.....	5 do ...	1 50	7 50
do do ...	do	B. Clarke.....	5 do ...	1 50	7 50
do do ...	do	Ed. McLaughlin.....	5 do ...	1 50	7 50
do do ...	do	Chas. Hill, team.....	29 $\frac{1}{4}$ do ...	3 50	102 38
do do ...	do	J. M. Boyle.....	30 do ...	1 00	30 00
Watchman.....					
Filling up approaches to new tow-path bridge rebuilt; excavating for new foundation north end abutment, St. Paul Street bridge; clearing out waste wiers near Lock 2, also Lock 2 chamber, &c.....	do	Thos. O'Neil, foreman	33 do ...	2 00	66 00
do do ...	do	Wm. Assell.....	15 do ...	1 25	18 75
do do ...	do	R. Wilson.....	24 $\frac{1}{2}$ do ...	1 50	36 75
do do ...	do	Geo. Boyle.....	24 $\frac{1}{2}$ do ...	1 50	36 75
do do ...	do	Tim. Sullivan.....	21 $\frac{1}{2}$ do ...	1 50	31 88
do do ...	do	Jno. Sullivan.....	19 $\frac{1}{2}$ do ...	1 50	28 88
do do ...	do	J. Johnson.....	17 $\frac{1}{2}$ do ...	1 50	25 88
do do ...	do	James Boyle, jr.....	13 $\frac{3}{4}$ do ...	1 50	20 25
do do ...	do	Jno. Weaver.....	32 $\frac{1}{2}$ do ...	1 50	48 75
do do ...	do	Peter Weaver.....	25 do ...	1 50	37 50
do do ...	do	James Boyle.....	18 $\frac{1}{2}$ do ...	1 50	27 38
do do ...	do	Wm. Enright.....	13 $\frac{3}{4}$ do ...	1 50	20 25
do do ...	do	A. O'Malia.....	20 do ...	1 50	30 00
do do ...	do	E. O'Malia.....	18 do ...	1 50	27 00
do do ...	do	M. White.....	7 do ...	1 50	10 50
do do ...	do	Rich. Grant.....	8 $\frac{3}{4}$ do ...	1 50	12 75
do do ...	do	K. Vigrass.....	10 $\frac{3}{4}$ do ...	1 50	15 75
do do ...	do	H. Beattie.....	5 $\frac{1}{2}$ do ...	1 50	8 25
do do ...	do	Jerry Sullivan.....	13 do ...	1 50	19 50
do do ...	do	Jordon Dittrick.....	6 $\frac{3}{4}$ do ...	1 50	10 13
do do ...	do	Fred Shewn.....	5 do ...	1 50	7 50
do do ...	do	J. Kelleen.....	13 $\frac{1}{2}$ do ...	1 50	19 88
do do ...	do	Thos. Daigan.....	1 do ...	1 50	1 50
Teams; hauling stone for St. Paul St. Bridge and Martindale Creek Bridge.....	do	Wm. Belton.....	7 $\frac{3}{4}$ do ...	3 50	27 13
do do ...	do	Jno. Belton.....	5 $\frac{1}{2}$ do ...	3 50	20 13
do do ...	do	Thos. Johnson.....	3 $\frac{1}{2}$ do ...	3 50	11 38
do do ...	do	Jno. Johnson.....	4 $\frac{1}{2}$ do ...	3 20	15 75
do do ...	do	Geo. Shickluna.....	3 $\frac{3}{4}$ do ...	3 50	13 13
do do ...	do	Joseph H. Smith.....	2 $\frac{1}{2}$ do ...	3 50	8 75
do do ...	do	John O'Brien.....	6 $\frac{3}{4}$ do ...	3 50	23 63
Quarrying out stone for general renewals and repairs, &c.....	do	Jas. Hamilton.....	26 do ...	2 00	52 00
do do ...	do	Arthur Bradley.....	22 $\frac{3}{4}$ do ...	1 50	34 13
do do ...	do	Wm. Gibson.....	6 $\frac{1}{2}$ do ...	1 50	9 75
do do ...	do	Fred. Dosical.....	7 $\frac{1}{2}$ do ...	1 50	11 15



PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Quarrying out stone for general renewals and repairs, &c.....	April, 1887	Ab. Bradley.....	19 days ...	1 50	28 50
do do do ...	do	Jerry Laughbey .....	24½ do ...	1 50	36 38
do do do ...	do	James Reynard.....	17½ do ...	1 50	25 88
do do do ...	do	Clarke Dennis.....	24½ do ...	1 50	36 38
do do do ...	do	James Faywell.....	22½ do ...	1 50	33 38
do do do ...	do	John Dundas.....	16 do ...	1 50	24 00
do do do ...	do	Wm. Winslow.....	10 do ...	1 50	15 00
Team .....	do	Lewis Tenbrook.....	20½ do ...	3 50	71 75
Driving piles for new temporary bridge and St. Paul Street Bridge, north end abutment, &c.	do	W. H. Tinlin .....	20½ do ...	2 25	} 66 63
do do do ...	do	do .....	10½ do ...	2 00	
do do do ...	do	Alf. Tinlin .....	17½ do ...	1 50	
do do do ...	do	John Sutton.....	16½ do ...	1 50	
do do do ...	do	do (horse)...	16½ do ...	1 50	24 75
Stopping up leaks in canal banks and general repairs from Lock 22 to Allanburgh, &c.....	do	Arthur Bradley.....	17 do ...	1 50	25 50
do do do ...	do	Patk. Griffin .....	18 do ...	1 50	27 00
do do do ...	do	John Brennan.....	16 do ...	1 50	24 00
do do do ...	do	Robert Pew.....	18½ do ...	1 50	27 75
do do do ...	do	Wm. Clarke.....	18½ do ...	1 50	27 75
do do do ...	do	P. McMahon (team)...	1 do ...	3 50	3 50
Caulking scow "Sir John" .....	do	Alex. Walker.....	3½ do ...	2 00	7 00
Taking off decayed walings to shore braces; cutting 6 in. off piles forming approaches to Port Robinson Swing Bridge; putting on new and stronger walings and cups; rearranging and replacing short end shore braces to lower level; repairing scow "Sir Charles," &c.....	do	F. T. Walton, foreman	24 do ...	2 75	66 00
do do do ...	do	S. R. Bradley.....	28 do ...	2 00	56 00
do do do ...	do	D. S. Walton.....	28 do ...	2 00	56 00
do do do ...	do	E. Smith.....	23½ do ...	2 00	47 00
do do do ...	do	Wm. Dunn .....	30 do ...	2 00	60 00
do do do ...	do	Benj. Baker .....	23½ do ...	2 00	47 00
do do do ...	do	R. Jackson.....	23½ do ...	2 00	47 00
do do do ...	do	B. O'Leary.....	13 do ...	2 00	26 00
do do do ...	do	S. J. Hill .....	9½ do ...	1 75	16 63
do do do ...	do	Wm. Abbey.....	23½ do ...	1 75	41 13
do do do ...	do	F. Shueman.....	26 do ...	1 75	45 50
do do do ...	do	R. McPherson.....	6½ do ...	1 50	9 75
do do do ...	do	John Brennan.....	8 do ...	1 50	12 00
do do do ...	do	Nelson Higgins.....	9 do ...	1 50	13 50
do do do ...	do	G. W. B. Jordon.....	26 do ...	1 50	39 00
Teams, &c. ....	do	John Coyle.....	19½ do ...	3 50	68 25
do .....	do	F. T. Walton.....	4 do ...	1 50	6 00
Repairing old lock 1 swing bridge, Port Dalhousie. ....	do	James Hindson.....	18 do ...	2 00	36 00
do do do ...	do	W. L. Smith.....	4½ do ...	1 75	7 44
Cutting up old lock 1 lock gates, and taking off iron work and storing same away, repairing banks, &c.....	do	John Paxton.....	13 do ...	1 75	22 75
do do do ...	do	Thomas Williams.....	13 do ...	1 50	19 50
do do do ...	do	Geo. Howe.....	8½ do ...	1 50	12 75
do do do ...	do	Frank Darby.....	13 do ...	1 50	19 50
do do do ...	do	Phil. Ohnith.....	13 do ...	1 50	19 50
do do do ...	do	Samuel Duffin.....	8 do ...	1 50	12 00
do do do ...	do	R. Edgraft.....	9 do ...	1 50	13 50

## PAY LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Dredging out bottom Junction lock, chamber and aprons.....	April, 1887	James Clancey.....	18 days ...	2 00	36 00
do do ...	do ...	Hugh Bailey.....	16 do ...	1 50	24 00
do do ...	do ...	M. Blake.....	16 do ...	1 50	24 00
do do ...	do ...	Thos. Waldron.....	16 do ...	1 50	24 00
do do ...	do ...	Geo. Nolan.....	16 do ...	1 50	24 00
do do ...	do ...	Wm. Pew.....	16 do ...	1 50	24 00
Dunnville—Building 12 new ice breakers for dam; repairing top covering stationary bridges, also guard lock gates.....	do ...	James Edgar.....	24 do ...	1 50	36 00
do do ...	do ...	Richard Mitchell.....	22½ do ...	1 50	33 38
do do ...	do ...	Geo. Killins.....	6 do ...	1 50	9 00
do do ...	do ...	T. C. Tipton.....	6 do ...	1 50	9 00
Clearing out culverts and removing ice jams from entrance of waste weir, and repairing bank along feeder, &c.....	do ...	John Thrush.....	26 do ...	1 25	32 50
do do ...	do ...	Ira Bessey.....	23½ do ...	1 25	29 06
do do ...	do ...	John Henderson.....	13 do ...	1 25	16 25
do do ...	do ...	E. Webber.....	11½ do ...	1 25	14 38
do do ...	do ...	John Burnham.....	8 do ...	1 25	10 00
Teams hauling material for repairs, also hauling rubbish, &c., out of culverts.....	do ...	M. A. Smith, team.....	10½ do ...	2 50	26 25
do do ...	do ...	R. G. Murdy do ...	5 do ...	2 50	12 50
do do ...	do ...	T. McDonald do ...	9 do ...	2 50	22 50
NEW WELLAND CANAL.					
Division No. 3.					
Clearing out ditches, repairing banks, &c.; taking down stone wall, Port Robinson swing bridge, to admit lowering shore braces, &c.....	do ...	R. A. Booth.....	21 do ...	2 00	42 00
do do ...	do ...	Geo. A. Jordan.....	25 do ...	1 75	43 75
do do ...	do ...	Jno. Madigan.....	20 do ...	1 50	30 00
do do ...	do ...	Geo. Brown.....	21 do ...	1 50	31 50
do do ...	do ...	James Hansell.....	20 do ...	1 50	30 00
do do ...	do ...	Benj. Redfern.....	23 do ...	1 50	34 50
do do ...	do ...	Geo. P. Misner.....	7 do ...	1 50	10 50
do do ...	do ...	James Edmonds.....	6 do ...	1 50	9 00
do do ...	do ...	Geo. Thompson.....	13 do ...	1 50	19 50
do do ...	do ...	Geo. A. Upper.....	8 do ...	1 50	12 00
do do ...	do ...	R. Stevenson.....	14 do ...	1 50	21 00
do do ...	do ...	Alfred Upper.....	7 do ...	1 50	10 50
do do ...	do ...	Dan. Kelly, team.....	9 do ...	3 50	31 50
Division No. 4.					
Taking off old decayed sheeting, Harbor Master's House, and putting on new; tightening up windows, and general repairs...	do ...	Wm. Cook.....	17 do ...	2 00	34 00
do do ...	do ...	Jacob Cook.....	13 do ...	1 50	19 50
do do ...	do ...	J. Moyer.....	1 do ...	1 50	1 50
do do ...	do ...	Wm. Deeks.....	5½ do ...	1 50	8 25
do do ...	do ...	E. Bonaberg.....	4 do ...	1 50	6 00
Caulking tool scow.....	do ...	A. Gilchrist.....	1 do ...	2 00	2 00
do do ...	do ...	Sam. Cook, team.....	8½ do ...	3 50	28 88
Inspector of piles, Port Dalhousie dam .....	do ...	H. Vanderburgh.....	1 month...	75 00	75 00
Watchman, Port Dalhousie shop..	do ...	Oscar Sharp.....	30 days...	1 50	45 00
do pattern house, Lock 13	do ...	Jno. McMillan.....	15 do ...	1 20	18 00
do do do ...	do ...	Henry Hughes.....	15 do ...	1 20	18 00
					3.618 68



## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
April 1-30...	To Coy Bros., St. Catharines— 1 dozen bolts, \$1; 100 lbs. wrought spike, at 5c., \$5..... 5½ gallons lard oil, at \$1, \$5.50; 1 oil can, 25c.... 11 lbs. sulphur, 55c..... 185 gallons machine oil, 65c.....	6 00 5 75 55 120 25	132 55
do 1-30...	James Wilson, Thorold— 11 lbs. manilla rope, 12½c..... 18 steel spades, \$1.25.....	1 38 22 50	23 88
do 1-30...	Henry Mussen, Allanburgh— 70 lbs. manilla rope, at 15c., \$10.50; 19 lbs. spike, at 5c., 95c..... 8 gallons coal oil, at 30c., \$2.40; 1 broom, 35c.... Axle grease, 15c.; 2 lights glass.....	11 45 2 75 24	14 44
do 1-30...	Chatfield & Neelon, St. Catharines—4 round copper plates.....		6 50
do 1-30...	R. A. Abbey, Port Robinson— 3 boxes axle grease, at 15c., 45c.; 3 dozen bolts, at 50c., \$1.50..... 3 gross screws, at 40c., \$1.20; 2 pails, 50c.; 9 chimneys, at 10c., 90c..... 1 lamp, 85c.; 2 paint brushes, at 30c., 60c.; 2 brooms, at 25c., 50c..... 2 gallons paint oil, at 90c., \$1.80; 15 lbs. red lead, at 10c., \$1.50..... *2 bushel potatoes, at 80c., \$1.60; 1 platter, 60c.; 1 vegetable dish, 80c..... *42½ lbs. meat, at 10c., \$4.27; 25 lbs. flour, 50c.; 29 loaves bread, at 6c., \$1.74..... *9 dozen eggs, at 12c., \$1.08; 1 bushel turnips, 40c.; 16 lbs. sugar, \$1..... *6 lights glass, 45c.; 10½ lbs. tallow, at 6c., 63c.; 2 gallons coal oil, 50c..... *1½ cords wood, \$4.50.....	1 95 2 60 1 95 3 30 3 00 6 51 2 48 1 58 6 75	30 12
	*Meals, &c., for men working at Port Robinson bridge while away from home.		
do 1-30...	J. Bradfield, Port Robinson— 10½ lbs. beef, at 12½c., \$1.35; 29½ lbs. beef, at 10c., \$2.97. 114½ lbs. shoulder, at 13c., \$14.89; 125½ lbs. ham, at 15c., \$18.79..... 3 dozen eggs, at 14c., 42c.; 1 bag apples, \$1; 1 peck potatoes, 20c....	4 32 33 68 1 62	39 62
	Above for meals for men working at Port Robinson bridge while away from home.		
do 1-30...	Wm. N. Garden, Welland— 4 pad locks, at 25c., \$1; 60 lbs. wrought spike, at 5c., \$3..... 8 gallons boiled oil, at 75c., \$6; 31 lbs. manilla rope, at 14c., \$4.34..... 6 paint brushes, \$4.70; bridge brush, 60c..... 2 files.....	4 00 10 34 5 30 20	19 84
April 1-30...	John Mathews, Port Colborne— 10 paint brushes, \$6.85; 50 lbs. wire nails, at 6c., \$3; 6 padlocks, 80c..... 300 lbs. felt, at 3c., \$9; 2 gross screws, at 45c., 90c.; 94 prs. butts, at 8c., 76c..... 2 knobs, 35c.; sand paper, 30c.; 18 galls. boiled oil, at 80c., \$14.40.....	10 65 10 66 15 05	



# **ACCOUNTS chargeable to Welland Canal, Renewals and Repairs—Continued.**

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
April 1-30...	To John Matthews, Port Colborne— ½ gall. japan, 75c.; 18 lbs. yellow ochre, at 5c., 90c.; 34½ lbs. putty, at 4c., \$1.38.....	3 03 14 00	
	3 prs. rubber boots.....		
	½ gall. knotting, at \$3, 75c.; 175 lbs. white lead, at 7c., \$12.25.....	13 00	
	1 gall. turpentine, \$1; brads, 33c.; ½ lb. blue, 20c.; 12½ lbs. black lead, at 8c., \$1.....	2 53	
			68 92
do 1-30...	Samuel Burrows, Port Colborne— 12 ft. waste pipe and time, \$2.25; repairing trough, \$1.80 11 lbs. zinc, at 10c., \$1.10; repairing lamps and pumps, 80c.....	4 05 1 90	
			5 95
do 1-30...	McCleary & McLean, Thorold— 540 ft. pine, at \$16, \$8.64; 2,570 ft. pine, at \$28, \$71.96.. 512 do \$32, \$16.38; 41 do \$35, \$1.44... 2,000 ft. oak plank, at \$25..... 78 ft. corner board, at 4c., \$3.12; 55 ft. water table, at 4c., \$2.20..... 30 ft. round, at 1c., 30c.; 52 ft. crown mould, at 4c., \$2.08 2 bunches lath, at 15c..... 4,800 ft. oak piles, at 15c.....	80 60 17 82 50 00 5 32 2 38 0 30 720 00	
			876 42
do 1-30...	James Wilson, Merritton— Foundry work— 1,535 lbs. castings, at 3½c..... 59½ lbs. steeling pick bars, &c., at 20c..... 13½ hrs. machine work machinery, at 40c.....	53 73 11 90 52 60	
do 1-30...	Blacksmith work— 5,418 lbs. screw bolts, at 5c., \$270.90; 190 lbs. straps, at 4c., \$7.60..... 575 lbs. rag spikes, at 3c., \$11.25; 20 lbs. steeling, at 6c., \$1.20..... 2,915 lbs. screw bolts repaired, at 2½c.....	278 50 12 45 72 88	
			482 06
do 30...	Campbell Sewer Pipe Co., Hamilton— 200 ft. 6-in. pipe, at 20c..... 100 ft. 4-in. do 12½c..... 1 6 x 4 T do.....	40 00 12 50 0 80	
		53 30	
	50 per cent.....	26 65	
			26 65
do 1-30...	Robert Foster, St. Catharines— Horse and waggon, for men repairing bridges, &c., 8 days, at \$2.50.....	20 00	
do 1-30...	Carriage.....	3 50	
do 1-30...	Horse and buggy, 13 days, at \$2.50..... do ½ day, for Superintendent looking after repairs.....	32 50 1 50	
			57 50
Apr. 1-30...	Henry Vanderburgh, Allanburgh—25 railway fares to Port Dalhousie and return.....		17 50
Apr. 1-30...	Daniel Williams, Thorold—33 wheelbarrows, at \$3.....		99 00
Apr. 30...	E. Riddle & Son, St. Catharines—3½ squares Sparham fire proof roofing and putting same on, \$6.....		19 20
Apr. 12...	Windeyer and Falloon, Toronto— Railway fare from Port Colborne..... Hotel expenses, \$4; hack fare, 30c..... Plans, sections and specifications for Toll Collector's office, Port Colborne.....	4 80 4 30 65 00	
			74 10
Apr. 1-30...	Charles Loesch, Welland—31 meals for men away from home on repairs, at 25c.....		7 75

## ACCOUNTS chargeable to Welland Canal, Renewals and Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Apr. 1-30...	F. T. Walton, Thorold— 11 railway fares to Port Robinson, 35c..... 4 do Merritton to Port Robinson, &c., at 55c..... Paid freight on drills and oakum.....	3 85 2 20 1 05	7 10
Mar. 24...	John Date, Montreal— Repairing and altering diver's air engine, fixing new brass cylinder, valves and connecting pipe, new foundation plate, &c., 3 brass cylinders, \$18; 1 brass cattlepiece, \$1.50..... 6 brass valves, at 75c., \$4.50; 1 cast iron foundation plate, \$5.75..... Paint, rubber packing, chain, &c..... Split pins, at 10c.; 3 cup leathers, 90c.; 8½ days, man and horse, \$3.60, \$30..... 1 pair divers' boots, lead soles and copper toes..... 3 feet snap tubing, at 75c.; 6 rubber rings, \$1.56.....	19 50 10 25 0 50 31 00 12 00 3 75	77 00 1 50
Mar. 28...	John Shickluna, St. Catharines—Horse and buggy.....		1 50
April 30...	W. F. Detroling, Port Colborne—16,000 red brick, de- livered, at \$7.....		112 00
do 30...	George Foreman, Port Colborne—10 cords building stone, delivered, at \$3.50.....		35 00
do 30...	Tug "Maggie," Port Colborne—Services to Thorold and vice versa.....		20 00
do 30...	Grand Trunk Railway Co., D. Hughes, Agent, Port Col- borne—Freight, 150 pieces sewer pipe from Hamilton...		8 07
<i>Old Welland and Feeder Canal.</i>			
do 1-30...	Coy Bros, St. Catharines— 6 bales oakum, at \$5, \$30; 1½ doz. files, at \$3, \$4.50..... 560 lbs. spike, at \$5, \$28; 6 craking hammers, at 60c., \$3 60..... 8 handles, at 20c., \$1.60; 3 augers, \$5.25; 41 lbs. red lead, at 10c., \$4.10..... 2 galls. raw oil, at 70c., \$1.40; 25 lbs. white lead, at 8c., \$2; 35 lbs. nails, at 4c., \$1.40..... 78 lbs. manilla rope, at 15c., \$11.70; ¾ bbl. pitch, \$3; 1 sheepskin, \$1.50..... 2 galls. boiled oil, at 75c., \$1.50; 2 paint brushes, \$2; 12 lbs. brimstone, at 5c., 60c..... 2 stone hammers, at \$1.25, \$2.50; 25 lbs. oxide, at 5c., \$1.25; 2 steel tapes, \$2.60..... 98 lbs. steel wire rope, at 18c.....	34 50 31 60 10 95 4 80 16 20 4 10 6 35 17 64	126 14
do 1-30...	James Wilson, Thorold— 86 lbs. nails, at 4c., \$3.44; 325 lbs. white lead, at 7c., \$22.75; 15 lbs. paint, at 15c., \$2.25..... 1 pick, \$1; 10 handles, at 25c., \$2.50; 8 shovels, at \$1.25, \$14; 1 gall. raw oil, 80c..... 2½ galls. turpentine, at \$1, \$2.50; 20 galls. boiled oil, at \$1, \$20; 34 lbs. putty, at 5c., \$1.70..... 44 lbs. manilla rope, at 15c., \$6.60; 5 lbs. washers, at 12½c., 63c.; 2 forks, \$3..... 2 paint brushes, \$2.50; 2 sash tools, 50c.; 203 lbs. spike, at 4½c., \$9.13..... 27 lbs. manilla rope, at 12½c., \$3.38; 81½ lbs. red lead, at 8c., \$6.52..... 3 mauls, at \$1.50.....	28 44 14 30 24 20 10 23 12 13 9 90 4 50	103 70

# ACCOUNTS chargeable to Welland Canal, Renewals and Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
April 1-30...	James Rolston, Dunnville— 1 shieve, \$1.35; 12½ lbs. red lead, at 8c., \$1; ½ gall. turpentine, 50c.....	2 85	
	21 lbs. putty, \$1.05; 15 lbs. red lead, at 8c., \$1.20; 3 gross screws, 85c.....	3 10	
	3 files, 82c.; 14 ft. 1½ in. pipe, \$1.75; 1 gall. machine oil..	3 32	
			9 27
do 1-30...	McCleary & McLean, Thorold— 27,962 feet pine, at \$16, \$447.40; 3,513 feet pine, at \$17, \$59.72.....	507 12	
	1,000 feet pine .....	18 00	
	903 feet oak, at \$25, \$22 57; 6,530 feet oak, at \$27, \$176.31.....	198 88	
	2,290 feet oak, at \$28, \$64.12; 320 feet oak, \$40, \$12 80	76 92	
	1,078 do piles, at 15c.....	161 70	
	Feeder Division— 2,634 feet pine, at \$16, \$42.15; 1,260 feet pine, at \$17, \$21.42 .....	63 57	
	4,043 feet oak, at 25c.....	101 07	
	116 oak wedges, at 5c.....	5 80	
	Sawing and dressing 2,000 feet timber.....	10 00	
			1,143 06
Nov., 1886...	John Bradley, Merritton— Boating and delivering dimension stone from quarry to St. Paul Street bridge, 95 yards, at 90c .....	85 50	
April 8...	Boating 2 scow loads rubble stone from quarry to St. Paul street bridge and lock 2, 488 yards, at 75c.....	366 00	
do 1-30...	Selecting stone from spoil banks, near Humberstone, breaking and loading same scows, towing from there and unloading and trimming same along banks of Feeder where washed out, 1,998 yards, at \$1.16.....	2,197 80	
			2,649 30
do 1-30...	Welland Vale Manufacturing Co., St. Catharines— 7 hooks, at 75c., \$5.25; 2 mortar hoes, at 60c., \$1.20.....	6 45	
	3 manure forks, at 75c., \$2.25; 2 scoops, at \$1.25, \$2.50..	4 75	
	3 hours work for machinist, and tools, at 40c.....	1 20	
			12 40
do 1-30...	Dobbie & Stewart, Thorold— 211½ lbs. bolts, 13 x 1 in., at 3½c .....	7 41	
	75 lbs. washers, at 3c.....	2 25	
	7½ hours forging and helper, at 60c.....	4 50	
	4½ do threading bolts, at 40c.....	1 70	
			15 86
do 1-30...	James Wilson, Merritton (blacksmithing)— 882 lbs. bolts repaired, at 2½c., \$22.05; 72 lbs. rag spikes, at 3c., \$2.16 .....	24 21	
	420 lbs. straps, at 4c., \$16.80; 106 lbs. Peck's bar strings, at 6c., \$6.36 .....	23 16	
	1,655 screw bolts, at 5c., \$82.75; 18 hours time, at 40c., \$7.20.....	89 95	
			137 32
do 29...	R. G. Murdy, Dunnville—14 yards gravel, at 60c .....		8 40
do 1-30...	James Wilson, Merritton— 1,264 lbs. castings, at 3½c .....	44 24	
	44 lbs. screw bolts, at 5c., \$2.20; 18 lbs. steel, at 20c., \$3.60.....	5 80	
	11 lbs. brasses, at 30c., \$3.30; 78 hrs. machine work, at 40c., \$31.20.....	34 50	
			84 54
do 1-30...	James, Upper, Allanburgh, 18 meals, at 25c., \$4 50; horse feed, \$1.50. Above for men and horse from Dunnville to Allanburgh after repairs, scow, &c.....		6 00
do 1-30...	Charles Henderson, Marshville, 34 meals, &c., for men on repairs (Feeder Canal) away from home, at 25c .....		8 50



**ACCOUNTS chargeable to Welland Canal, Renewals and Repairs—Continued.**

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts
April 1-30...	Thomas Grenville, Thorold, 40 days men and self painting Marlatts' Bridge and approaches, &c., at \$2.....		80 00
do 1-30...	Thomas Hastings, contractor, St. Catharines— Building cut stone abutments for St. Paul Street Bridge, north end, and furnishing material, 122½ yds., at \$10..	1,223 33	
	Building rubble wing walls, in cement, for St. Paul Street Bridge, 64 yds., at \$3.....	192 00	
	Building 2 rubble bridge abutments, in cement, at Martindale Creek near Port Dalhousie, 25½ yds., at \$3 .....	76 00	
	CR.	1,491 33	
Jan. 17...	By cash on account stone delivered.....	\$154 00	
April 30...	122½ yds. stone from Government quarry, at \$2..	244 66	
		398 66	1,092 67
			7,739 83

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of May, 1887, to pay Carpenters, Laborers, Teams and Accounts, chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenters, repairing floats, bridges and lock gates, Old Canal; repairing bridge of New Canal and lock gates, assorting timber for new shed, &c. ....	May, 1887.	H. Vanderburgh.....	1 month...	75 00	75 00
do do .....	do	James Hindson.....	33 days...	2 00	66 00
do do .....	do	Wm. Mossip.....	7 do ...	2 00	14 00
do do .....	do	Samuel Houston.....	5 do ...	2 00	10 00
do do .....	do	Alf. Coons.....	26 do ...	2 00	52 00
Watchman, Port Dalhousie shop, &c. ....	do	Oscar Sharp .....	31 do ...	1 50	46 50
Watchman, Pattern House, Lock 13 .....	do	John McMillan .....	31 do ...	1 20	37 20
Repairing banks and putting in new snub posts; opening up and cleaning out ditches; pulling box pipe on long level; also, renewing snub posts, Locks 5, 2, 9 and Bridge 6, &c..	do	Con Reed, foreman ..	27½ do ...	2 00	55 50
do do .....	do	Wm. Daley.....	27 do ...	1 50	41 63
do do .....	do	Adam Flood .....	19½ do ...	1 50	29 63
do do .....	do	Geo. Julian.....	23 do ...	1 50	34 88
do do .....	do	Andrew Secord.....	20 do ...	1 50	30 38
do do .....	do	Daniel Salvin.....	15 do ...	1 50	23 63
do do .....	do	Geo. Daley.....	13 do ...	1 50	20 63
do do .....	do	Wm. Wills.....	26 do ...	1 50	39 00
do do .....	do	Thos. Donahue.....	17 do ...	1 50	25 50
do do .....	do	Thos. Hayden.....	1 do ...	1 50	1 50
do do .....	do	Geo. Putland.....	27 do ...	1 50	40 50
do do .....	do	Jos. Johnson, team...	29 do ...	3 50	101 50
Excavating and widening and deepening ditches to draw off water from Marr's Pond, &c....	do	Geo. A. Jordon.....	26 days...	2 00	52 00
do do .....	do	Jas. Hansel.....	24½ do ...	1 50	37 13
do do .....	do	Jno. Madigan.....	25 do ...	1 50	37 88
do do .....	do	Geo. Brown.....	25 do ...	1 50	37 50
do do .....	do	Benj. Redfern.....	25½ do ...	1 50	37 88
do do .....	do	Jno. McPherson.....	22½ do ...	1 50	34 13
do do .....	do	Levi Wilson.....	21½ do ...	1 50	32 25
do do .....	do	W. J. Abbey.....	13 do ...	1 50	19 50
do do .....	do	A. McIntosh, W. B. ...	16½ do ...	0 75	12 56
do do .....	do	Dan. Kelly, team.....	23½ do ...	3 50	81 37
Opening up and clearing ditches and repairing banks, north and south of Welland, also clearing out Welland and Junction Locks.....	do	Jas. Clancey, foreman	26 do ...	2 00	52 00
do do .....	do	Hugh Bailey.....	26 do ...	1 50	39 00
do do .....	do	Micheal Blake.....	25½ do ...	1 50	38 25
do do .....	do	Thos. Waldron.....	26 do ...	1 50	39 00
do do .....	do	Geo. Nolan.....	26 do ...	1 50	39 00
do do .....	do	Wm. Pew.....	26 do ...	1 50	39 00
do do .....	do	Alph. Hannah, team...	1 do ...	3 50	3 50
Sharpening and driving piles for tug docks at Port Colborne, &c.	do	Wm. Timlin, foreman	25½ do ...	2 25	56 81
do do .....	do	J. Miller.....	20 do ...	2 00	40 00
do do .....	do	S. J. Hill.....	20 do ...	2 00	40 00
do do .....	do	Alf. Timlin.....	24 do ...	1 50	36 00
do do .....	do	John Sutton.....	23½ do ...	1 50	35 63
do do .....	do	George Mathews.....	8 do ...	1 50	12 00
do do .....	do	Wm. Bradley.....	8 do ...	1 50	12 00
do do .....	do	John Sutton, horse...	23½ do ...	1 50	35 63

PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
<i>Division No. 4.</i>					
Repairing Harbor Master's house, also Lock and Bridges, &c.....	May, 1887.	Wm. Cook.....	26 days...	2 00	52 00
do do .....	do ...	Jacob Cook.....	26 do ...	1 50	39 00
Excavating for and setting new snub posts; repairing floats, towpaths and opening up and cleaning out back ditches; putting culvert and new tow-path Ramey's Bend, and helping to unload building stone, &c.....	do ...	Wm Deeks.....	8 do ...	2 00	16 00
do do .....	do ...	C. Keen.....	26 do ...	1 50	39 00
do do .....	do ...	J. Moyer.....	26 do ...	1 50	39 00
do do .....	do ...	F. Moyer.....	24 do ...	1 50	36 00
do do .....	do ...	E. Sloat.....	25 do ...	1 50	37 50
do do .....	do ...	M. Anthes.....	24 do ...	1 50	36 00
do do .....	do ...	H. Brennan.....	24 do ...	1 50	36 00
do do .....	do ...	J. Mebagan.....	25 do ...	1 50	37 50
do do .....	do ...	G. Petey.....	25 do ...	1 50	37 50
do do .....	do ...	Sam Cook, team.....	18½ do ...	3 50	63 87
do do .....	do ...	H. Cook and horse.....	2 do ...	2 00	4 00
<b>OLD WELLAND CANAL AND FEEDER.</b>					
Carpenters taking down temporary bridge across canal alongside St. Paul Street permanent Bridge; taking out and putting up new foot bridge across roadway, sail maker premises, &c., &c.....	do ...	N. Morey, foreman.....	28½ do ...	2 75	79 06
do do .....	do ...	P. Shortell.....	27½ do ...	2 00	55 50
do do .....	do ...	S. Radcliffe.....	28½ do ...	2 00	57 50
do do .....	do ...	T. Rapsey.....	28½ do ...	2 00	56 50
do do .....	do ...	W. H. Charles.....	1½ do ...	2 00	3 50
do do .....	do ...	Robert Wilson.....	27½ do ...	1 50	41 63
do do .....	do ...	Chas. Hill, team.....	27½ do ...	3 50	97 12
do do .....	do ...	J. Boyle, watchman.....	31 do ...	1 00	31 00
Making approach to bridge across Marr's & Pond Creeks; unloading scow with stone and gravel; putting down stone crossing St. Paul Street Bridge, &c., &c.....	do ...	T. O'Neil, foreman.....	28½ do ...	2 00	57 00
do do .....	do ...	John Weaver.....	23 do ...	1 50	34 50
do do .....	do ...	Jas. Boyle.....	24 do ...	1 50	36 00
do do .....	do ...	John Hemphill.....	21½ do ...	1 50	32 25
do do .....	do ...	Wm. Chandler.....	12½ do ...	1 50	18 75
do do .....	do ...	Richard Grant.....	28 do ...	1 00	28 00
do do .....	do ...	Wm. Assell.....	15½ do ...	1 25	19 37
Quarrying out stone, also loading and unloading scow with same.	do ...	Jas. Hamilton, for'n.....	26 do ...	2 00	52 00
do do .....	do ...	Arthur Bradley.....	24 do ...	1 50	36 00
do do .....	do ...	Jas. Faywell.....	25½ do ...	1 50	38 25
do do .....	do ...	Abr. Bradley.....	24½ do ...	1 50	36 75
do do .....	do ...	J. Laughey.....	25½ do ...	1 50	38 25
do do .....	do ...	C. Dennis.....	25½ do ...	1 50	38 25
do do .....	do ...	Wm. Winslow.....	17 do ...	1 50	25 50
do do .....	do ...	Jno. Dundas.....	15 do ...	1 50	22 50
do do .....	do ...	M. Nester.....	½ do ...	1 50	0 75
do do .....	do ...	B. Darby.....	½ do ...	1 50	0 75
do do .....	do ...	A. W. Bradley.....	½ do ...	1 50	0 75
do do .....	do ...	C. Tenbrook, team.....	25 do ...	3 50	87 50



## PAY-LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
General repairs; also facing canal banks with stone, &c.....	May, 1887.	Arthur Bradley.....	30 days...	1 50	45 00
do do ...	do ...	Pat. Griffin.....	28 do ...	1 50	42 00
do do ...	do ...	Jno. Brennan.....	24½ do ...	1 50	36 75
do do ...	do ...	Robt. Pews.....	25 do ...	1 50	37 50
do do ...	do ...	Wm. Clarke.....	24½ do ...	1 50	36 75
do do ...	do ...	Richard Dawson.....	5 do ...	1 40	7 50
Putting new foundation under winches Locks 20 and 22; putting new railings on bridge 16, and working on wing approaches bridge 15; repairing lock gates and winches from locks 12 to 25; repairing pivot supporting bridge, and rebuilding lock gates, &c.....	do ...	F. T. Walton.....	16 do ...	2 75	44 00
do do ...	do ...	S. R. Bradley.....	25 do ...	2 00	50 00
do do ...	do ...	D. S. Walton.....	26 do ...	2 00	52 00
do do ...	do ...	Wm. Dunn.....	27 do ...	2 00	54 00
do do ...	do ...	Ed. Smith.....	25 do ...	2 00	50 00
do do ...	do ...	Benj. Baker.....	6 do ...	2 00	12 00
do do ...	do ...	R. Jackson.....	6 do ...	2 00	12 00
do do ...	do ...	S. J. Hill.....	7½ do ...	2 00	14 50
do do ...	do ...	Wm. Abbey.....	6 do ...	1 75	10 50
do do ...	do ...	F. Sherman.....	26 do ...	1 75	45 50
do do ...	do ...	Geo. B. Jordon.....	6 do ...	1 50	9 00
do do ...	do ...	Adam Brown.....	3½ do ...	2 00	6 50
do do ...	do ...	Wm. Klock.....	½ do ...	1 75	0 88
do do ...	do ...	F. T. Walton, H. & W	4 do ...	1 50	6 00
Attending locks, regulating water night and day, quarrying out stone, &c.....	do ...	Andrew Clark.....	19½ do ...	1 50	29 25
do do ...	do ...	Wm. Gibson.....	20 do ...	1 50	30 00
do do ...	do ...	Jas. Reynard, jun.....	20 do ...	1 50	30 00
do do ...	do ...	Wm. Horton.....	19 do ...	1 50	28 50
do do ...	do ...	Geo. Wilson.....	19 do ...	1 50	28 50
do do ...	do ...	Geo. Boyle.....	20 do ...	1 50	30 00
do do ...	do ...	Alex. Winslow.....	1½ do ...	1 50	2 25
do do ...	do ...	Wm. Northup.....	1½ do ...	1 50	2 25
do do ...	do ...	John Fenney.....	1 do ...	1 50	1 50
do do ...	do ...	Rufus Swazzie.....	5 do ...	1 50	7 50
do do ...	do ...	Jno. Sullivan.....	1 do ...	1 50	1 50
do do ...	do ...	T. Johnson.....	1 do ...	1 50	1 50
<i>Feeder Division.</i>					
Repairing bridges; lifting scow and wheelbarrows, &c.....	do ...	James Edgar.....	6 do ...	1 50	9 00
do do ...	do ...	R. Mitchell.....	6 do ...	1 50	9 00
do do ...	do ...	Nelson Banks.....	6½ do ...	1 50	9 75
do do ...	do ...	David Cooper.....	9½ do ...	1 50	14 25
do do ...	do ...	Geo. Killins.....	12 do ...	1 50	18 00
Painting canal toll Collector's office.....	do ...	T. C. Tipton.....	23 do ...	1 50	34 50
Repairing banks and tow paths, and cleaning off bridges, &c.....	do ...	John Trush.....	6 do ...	1 50	9 00
do do ...	do ...	Ira Bessey.....	5 do ...	1 25	6 25
do do ...	do ...	E. Webber.....	6 do ...	1 25	7 50
do do ...	do ...	Jno. Broham.....	17 do ...	1 25	21 25
do do ...	do ...	Thos. Bessey.....	2 do ...	1 25	2 50
do do ...	do ...	R. G. Murdy, team....	8 do ...	2 50	20 00
					4,069 43

# ACCOUNTS chargeable to Welland Canal, Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
May 1-31...	To Coy Bros., St. Catharines— 25 diamond wrenches, \$1.50..... 25 pipe do \$2.75..... 22 screw do \$2.00..... 3½ yards wire cloth, \$1.36 ; 1½ lbs. chain, 25c..... 12 lbs. rod iron, 48c. ; 672 lbs. spike, at 5c., \$33.60..... 4 keg nails, at \$3.50, \$14 ; 2 lbs. castile soap, 60c..... 1 gallon castor oil, \$1.40 ; 1 gallon black Japan, \$1.10..... 137 lbs. tallow, at 9c., \$12.33 ; 2 lbs. Indian red, at 25c., 50c..... 1 empty case, 25c. ; 6 axes and handles, at \$1.25, \$7.50..... 16 hand hammers, 80c..... 404½ lbs. rattline, 15c.....	37 50 68 75 44 00 1 61 34 08 14 60 2 50 12 83 7 75 12 80 60 68	297 10
do 1-31...	James Wilson, Thorold— 1,210 spikes, at 4½c., \$54.45 ; 2 pad locks, \$1.50..... 22½ lbs. nails, at 4½c., 90c.....	55 95 90	56 85
do 1-31...	Henry Mussen, Allanburgh— 5 oilers, at 15c., 75c. ; 7 gallons coal oil, at 30c., \$2.10 ; 1 lock, 75c..... ½ dozen chimneys, 50c. ; 1 paint brush, 60c. ; burner, 22c. ; wick, 35c..... 11 rolls wall paper, at 15c., \$1.65 ; 26½ rolls border, at 4c., \$1.06.....	3 60 1 67 2 71	7 98
do 1-31...	R. A. Abbey, Port Robinson— 5 gallons boiled oil, at 90c., \$4.50 ; 13 lbs. red lead, at 10c., \$1.30..... 12 gallons coal oil, at 30c., \$3.60 ; 1 gallon machine oil, 75c. ; 1 paint brush, 25c..... *10 loaves bread, at 6c., 60c. ; 16 lbs. sugar, \$1 ; 6 lbs. tea, at 40c., \$2.40 ; 7 lbs. oatmeal, 25c..... *5 dozen eggs, 63c. ; 1 pail, 60c. ; 3 lbs. lard, at 14c., 42c. ; chimneys, \$1..... *6 lbs. butter, 23c., \$1.38 ; soap, 25c.....	5 80 4 60 4 25 2 65 1 63	18 93
	*Supplies for men on Government scow away from home.		
do 1-31...	W. N. Garden, Welland—2 wrenches, at 60c., \$1.20 ; 15 lbs nails, at 5c., 75c.....		1 95
do 1-31...	T. Cummings, Welland— 100 lbs. whitelead, \$8 ; 12 gallons boiled oil, at 80c., \$9.60 ; 20 lbs. putty, at 4½c., 90c..... 1 gallon turpentine, \$1.10 ; ¼ gallon Japan, \$1.10 ; 23½ lbs. mixed paint, 4c., \$1.14..... 3 paint brushes, at 60c., \$1.80 ; 3 kegs C. P. lead, at \$2.10, \$6 ; putty knife, \$1.25..... 4 assorted paint brushes.....	18 50 3 34 8 05 57	30 46
do 1-31...	George Lloyd, St. Catharines— 4 tin lamps, at 60c., \$2 ; 30 oilers, at 50c., \$15..... 3 oilers with long spouts, at 60c.....	17 00 18 00	35 00
do 1-31...	Richard House, St. Catharines— 8½ galv. pipe, at 20c., \$1.70 ; repairing oil cans, 90c..... Repairing bells at office, \$1.50 ; 23 lbs. solder, \$1.15 ; 2 elbows, at 50c., \$1..... 1 dozen hooks, \$1.50 ; 1 sheet tin, 10c. ; 1 gas cock and key, \$2..... 25 oil cans, at 25c..... 60 feet extra galvanized pipe, 30c..... 11½ hours labor, at 25c., \$2.88 ; 2 hours helper, at 15c., 30c..... 28 hours man and helper, canal office, 37½c.....	2 60 3 65 3 60 6 25 18 00 3 18 10 50	47 78

# Accounts chargeable to Welland Canal, Renewals and Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
do 1-31...	To John Mathews, Port Colborne— 2 paint brushes, at 80c., \$1.60; 1½ lbs. blue, at 40c., 60c.; 50 lbs. black lead, at 6c., \$3.....	5 20	
	25 lbs. white lead, at 7c., \$1.75; 6 gallons boiled oil, at 80c., \$4.80; 1 pint Japan, 38.....	6 93	
	30 lbs. Venetian red, at 5c., \$1.50; 1½ gallon turpentine, at 80c., \$1.20; 16 lbs. putty, at 4c., 64c.....	3 34	
	173 lbs. spike, at 5c., \$8.65; 45 lbs. wire nails, at 6c., \$2.70; ½ dozen shovels, \$5.25.....	16 60	
	28 lbs. yellow ochre, at 5c., \$1.40; 26½ lbs. manilla rope, at \$12½c., \$3.31; 10 lights glass, 70c.....	5 41	
	2 lbs. marline, at 17c., 34c.; 1 bale oakum, \$4 50; 9 files, at 12c., \$1.08; bulls, 38c.....	6 30	
	100 lbs. shingle nails, \$5; 300 lbs. nails, at 4c., \$12; 2 packages cut nails, 38c.....	17 38	
	3 13-foot oars, \$4.88; 5 gross assorted screws, \$2.03; 2 dozen hooks, \$1.....	7 91	
	1 lock, 30c.....	30	
			69 37
do 1-31...	Sam. Burrows, Port Colborne— 8½ lbs. line, at 10c., 85c.; 25 feet galvanized trough, at 15c., \$3.75 .....	4 60	
	8-foot conductor pipe, at 12½c., \$1; repairing conductor pipes, &c., \$1.90.....	2 90	
			7 50
May 11...	Gordon & McKay, Merritton—1 sack waste, 50 lbs., at 9½c Arch. McIndoe, Thorold—Repairing 2 double 6 in. blocks for iron strap .....		4 75
do 20...	W. F. Detroling, Port Colborne—14,000 red brick, at \$7.....		5 25
do 31...	George Freeman, Port Colborne—25 cords building stones, at \$4.....		98 00
do 31...	Murray & Cleveland, St. Catharines—10 cords building stone, at \$4.....		100 00
do 25...	W. H. Rooth, Port Colborne—Painting Harbor Master's house, and furnishing material, Port Colborne.....		40 00
do 1-31...	Grand Trunk Railway Co., Port Colborne— Freight on 305½ tons building stone, at 60c.....	183 30	
	do 2 screws from Port Dalhousie.....	1 37	
	1 railway ticket and return.....	1 25	
			185 92
do 6-7...	F. H. Becker, Thorold—16 meals, at 25c., \$4; 5 feeds for teams, at 50c., \$2.50..... (Above for diver and assistant away from home.)		6 50
April 1-30...	Mrs. Jordon, Port Robinson— 7 days' board, 3 men, 21 days, at 75c.....	15 75	
	do horse do .....	5 25	
	(Above for men and horse on pile driver away from home.)		21 00
May 1-31...	Thos. O'Neil, Port Colborne—319 meals for men on pile driver away from home, at 25c.....		79 75
do 31...	Dickinson & Sness, Humberstone—Advance on account of construction of Canal Toll Collectors' and Customs House, Port Colborne, as per agreement.....		1,000 00
do 1-31...	McCleary & McLean, Thorold— 1,063 ft. pine, at \$16, \$170.10; 4,095 ft. pine, at \$17, \$69.61 .....	239 71	
	700 ft. pine, at \$18, \$12.60; 452 ft. pine, at \$30, \$13.56...	26 16	
			265 87
do 1-31	James Wilson, Merritton— Blacksmithing— 1,881 lbs. S. bolts, rep., at 2½c., \$47.03; 30 lbs. rag spikes, at 3c., 90c.; 1 double block, \$3.....	52 93	
	33 lbs. plates, at 4c., \$1.32; 1,461 lbs. S. bolts, at 5c., \$73.05; 23 lbs. steel, \$1.60.....	78 97	
	5 hours' time, forging, at 40c.....	2 00	



ACCOUNTS chargeable to Welland Canal—Renewals and Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
May 1-31...	To James Wilson, Merriton— Foundry work— 1,136 lbs. castings, at 3½c., \$39.76; 84 lbs. screws, at 5c., \$4.20; 29 lbs. steel, at 20c., \$5.80.....	49 76 6 60 90 80	281 06
May 1-31...	22 brass nuts..... 227 hours machinist and machinery work, at 40c.....		
May 1-31...	J. G. Demare, Port Dalhousie— Express charges on diver's pump, shoes, &c., from Mon- treal.....	8 05	17 67
May 12...	2 railway fares, Allanburgh.....	1 20	
May 1-31...	2 do Port Colborne.....	2 50	1 50
	3 do Thorold.....	0 75	
	1 do Allanburgh.....	0 30	73 00
	3 do Welland and return.....	3 05	
	Freight on bags for Lock 25.....	0 35	39 90
	do pump.....	0 35	
	do do from Welland.....	1 12	17 50
May 12...	John Shickluna, St. Catharines, horse and buggy.....		
May 1-31...	Robert Foster, St. Catharines— Horse and waggon, for men repairing bridges, &c., 11 days, at \$2.50.....	27 50	73 00
	Horse and buggy, 17 days, at \$2.50.....	42 50	
	do for Superintendent looking after gen- eral repairs, &c., 2 days, at \$1.50.....	3 00	17 50
May 1-31...	Henry Vanderburgh, Allanburgh— 25 railway fares, Port Dalhousie and return, at 75c.....		
May 9-11...	R. F. Windeyar, architect, Toronto— Altering plans and specification of Toll Collector and Customs offices, Port Colborne, so as to obtain requi- site extra accommodation.....	30 00	39 90
	Railway fare from Toronto and return.....	4 80	
	Hotel expenses and cab fares.....	5 10	35 20
April 30...	Grand Trunk Railway Co., Montreal— For cost of raising and lowering drawbridge at Mar- latts' Pond, on Welland Railway, as requested by Superintendent of Canal— 18 days' wages of carpenters.....	32 00	
	Superintendence, use of tolls, &c., 10 p.c.....	3 20	94 36
	<i>Old Welland and Feeder Canal.</i>		
May 1-31...	Coy Bros., St. Catharines— 48 lbs. manilla rope, at 15c., \$7.20; 6 brooms, at 30c., \$1.80; 1 dead lock, 50c.....	9 50	94 36
	17 galls. machine oil, at 80c., \$13.60; 5 galls. raw oil, at 70c., \$3.50.....	17 10	
	5 bridge brooms, at 75c., \$3.75; 4 galls. lard oil, at \$1, \$4 135 lbs. spike, at 4c., \$6.40; 1 tub axle grease, \$3; 1 tape line, \$2.50.....	7 75 11 90	20 70
	4 galls. boiled oil, at 75c., \$3; 75 lbs. steel rope, at 20c., \$15;....., \$2.15.....	20 70	
	2 paint brushes, at 62½c., \$1.25; 300 ft. fuse, at 2c., \$6; 2 kegs blasting powder, \$8.....	15 25	12 11
	1½ lbs. lampblack, 38c.; 1½ doz. hooks, 28c.; 77 lbs. manilla rope, at 15c., \$11.55.....	12 11	
May 1-31...	James Wilson, Thorold— 77 lbs. tarred rope, at 15c., \$11.55; 80 lbs. manilla rope, at 12½c., \$10.....	21 55	26 92
	8 door locks, at 75c., \$6; 455 lbs. spikes, at 4½c., \$20.47; 9 lbs. putty, at 5c., 45c.....	26 92	

AMOUNT chargeable to Welland Canal—Repairs and Renewals—*Continued.*

Date.	Nature of Works.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
May 1-31...	To James Wilson, Thorold—		
	13½ lbs. chain, \$1.28; 2 shovels, at \$1.25, \$1.50; 9 files, assorted, at 30c., \$2.70.....	6 48	
	3 doz. patented locks, at \$4.20, \$12.60; 50 lbs. white lead, at 7c., \$3.50 .....	16 10	
	7 galls. lard oil, at \$1, \$7; 160 lbs. spike, at 5c., \$8.30...	15 30	
	1 5-ft. oiler, \$1.75; 4 bridge brooms, at 75c., \$3; lantern, \$1 .....	5 75	
	4 gross assorted screws .....	1 00	
			93 10
May 1-31...	Battle & Smyth, Thorold, 56 galls. mixed paint, at 90c.....		106 40
May 1-31...	James Rolston, Dunnville—		
	133 lbs. iron, at 3c., \$3.99; 75 lbs. red lead, at 8c., \$6; 2½ lbs. Paris white, at 5c., \$1.10.....	11 09	
	3 lbs. white glue, at 40c., \$1.80; 3 lbs. rubber packing, at 50c., \$1.50; 26 lbs. white lead, at 10c., \$2.60 .....	8 00	
	1 tackle block, \$7; ass. screws, 78c.; 1 bridge broom....	8 38	
	229 lbs. rd. iron, at 2c., \$4.58; 26 bolts, \$1.54; 12½ lb. rope, at 15c., \$1.87.....	7 99	
	85 lbs. Boston rope, at 15c., \$12.75; 75 lbs. spike, at 5c., \$3 75.....	13 50	
	2 lbs. blue paint.....	0 20	
			49 46
May 31...	John Battle, Thorold—		
	8 bush. cement, at 25c., \$2; 4 brls. cement, at \$1.50, \$6..	8 00	
	4 yds. sand, \$1.75. ....	7 00	
			15 00
May 20...	E. A. Smyth, St. Catharines—		
	1 cord hard block dressstone for St. Paul Street Bridge..		20 00
May 1-31...	John Bradley, Merritton—		
	Selecting stone from spoiled banks near Humberstone, breaking and loading same on scows, and unloading and trimming same along banks of feeder where banks were washed out, 4,113 yds., at \$1.10.....		4,524 30
May 1-31...	R. G. Murdy, Dunnville—		
	6 cords stone, at \$4.5 .....	27 00	
	24 yds. gravel, at 60c.....	14 40	
			41 40
May 2...	James Robinson, St. Catharines—Use of tug "Mac," towing.....		4 00
May 1-31...	E. C. Rogers—St. Catharines—		
	½ ton soft coal, at \$6, \$3; ton stove coal, \$3.13.....	6 13	
	1,240 lbs. steam coal.....	4 50	
			11 53
May 1-31...	Wm. Hutchinson, Port Dalhousie—11,100 lbs. steam coal, at \$4.25.....		23 59
May 1-31...	Thomas Hastings, St. Catharines—		
	22 days, mason and plaster, at \$3.50 .....	77 00	
	10½ days, laborers, at \$1.50.....	15 75	
	1 day, horse and waggon.....	2 50	
	3 brls. mortar, at \$1 .....	3 00	
	Building foundation for bridge house and retaining wall at St. Paul Street Bridge, 26¾ yards.....	134 81	
	25½ yards rubble mason work at Martindale Creek Bridge paid short, at \$1 per yard, last month.....	25 50	
		258 56	
	CR.—By 26¾ yards stone, at \$1.....	26 96	
			31 60
do 1-31...	To James Wilson, Merritton—		
	Blacksmith Work—		
	1,614 T bolts, repaired, at 2½c., \$40.35; 1,242 lbs. rods, repaired, at 2c., \$24.84.....	65 19	
	138 lbs. rag bolts, at 3c., \$4.14; 692 lbs. straps, at 4c. \$27.68 .....	31 82	

**Amount chargeable to Welland Canal—Repairs and Renewals—Continued.**

Date.	Nature of Works.	Amount.	Total.
1887.		\$ cts.	\$ cts.
May 1-31...	To James Wilson, Merritton—		
	98 lbs. steeling, at 6c., \$5.88, 89 lbs. cast steel, at 20c. \$17 80.....	23 68	
	3,768 lbs. screw bolts, new, at 5c.....	188 40	
	Wood work on cart, \$6; setting tire, \$1.....	7 00	
	Foundry Work—		
	729 lbs. castings, at 3½c., \$23.52; 121 lbs. brass nuts, at 30c., \$36.30.....	61 82	
	1 new crab complete.....	35 00	
	180 hours, machinists and machinery, at 40c.....	72 00	484 91
do 1-31...	McCleary & McLean, Thorold—		
	12,313 ft. pine, at \$16, \$197.00; 2,170 ft. pine, at \$17, \$36.89	233 89	
	369 do 18, 6.64; 930 do 23, 21.39	28 03	
	7,521 ft. oak, at \$25, \$188.02; 4,110 ft. oak, at \$27, \$11.09	298 99	
	241 do 28.....	6 75	567 66
do 31...	J. & R. Miller, Agents for Watson & Hillman, New York—		
	4 15-ton broad-base, low-lift, hydraulic jacks to run out 18 inches, at \$205.....	420 00	
	2 45-ton broad-base, low-lift, hydraulic jacks to run out 18 inches, at \$200.....	400 00	820 00
do 1-31...	T. & R. Miller, Port Dalhousie—		
	1,872 lin. ft. 10 by 12 timber framed and built in cribs and stringers, at 35c. per foot.....	655 20	
	214 lin. ft. 7 by 7 timber in truss and railways, at 30c. per foot.....	64 20	
	688 ft. oak plank laid on bridge, at \$40 per M.....	27 52	
	215 lbs. bolts, at 6c., \$12.90; 1 keg ship spikes, \$4.50.....	17 40	
	Painting bridge, two coats.....	20 00	
		784 32	
	CR.—By cash received from treasurer of the Township Louth, being amount of their appropriation to the work.....	200 00	584 32
			12,667 42



**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of June, 1887, to pay Carpenters, Laborers, Teams, &c., chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Preparing and framing for new store shed, Port Dalhousie; repairing Marlatt's swing bridge and putting on new walings, &c.....	June, 1887	H. Vanderburgh.....	1 month..	75 00	75 00
do do .....	do	James Hindson.....	25½ days..	2 00	51 00
do do .....	do	Wm. Patterson.....	25½ do ..	2 00	51 00
do do .....	do	Alfred Coons.....	25½ do ..	2 00	51 00
do do .....	do	A. Impey.....	23½ do ..	1 75	41 12
do do .....	do	John Doig.....	25½ do ..	1 75	44 62
do do .....	do	R. Johnston.....	25½ do ..	1 75	44 62
do do .....	do	Geo. Irving.....	14½ do ..	1 50	21 75
do do .....	do	Robt. Houston.....	15½ do ..	1 50	23 25
do do .....	do	Jos. Johnson, team.....	25½ do ..	3 50	89 25
Watchman, gate yard and shop, Port Dalhousie; pattern house, lock 13.....	do	Oscar Sharp.....	30 do ..	1 50	45 00
do do .....	do	John McMillan.....	30 do ..	1 20	36 00
Excavating, widening and deepening ditch to draw off water from; opening up ditches along stone road, also grading up and ditching new road division at Port Robinson, &c.....	do	Geo. A. Jordan.....	26 do ..	2 00	52 00
do do .....	do	James Hansell.....	24½ do ..	1 50	36 37
do do .....	do	John Madigan.....	24½ do ..	1 50	36 75
do do .....	do	Geo. Brown.....	24½ do ..	1 50	36 75
do do .....	do	John McPherson.....	8½ do ..	1 50	12 37
do do .....	do	Benjamin Redfern.....	24½ do ..	1 50	36 75
do do .....	do	Levi Wilson.....	6 do ..	1 50	9 00
do do .....	do	Wm. J. Abbey.....	7½ do ..	1 50	11 25
do do .....	do	A. McIntosh, W. B.....	8½ do ..	0 75	6 37
do do .....	do	Daniel Kelly, team.....	16½ do ..	3 50	57 75
do do .....	do	John Hill, team.....	6½ do ..	3 50	22 75
Taking care of passing vessels' lines while passing, &c.....	do	John Hanley.....	15 do ..	1 00	15 00
Repairing canal banks and opening up ditches between Port Robinson, Welland and Junction, &c.....	do	Gas. Clancey, foreman.....	26 do ..	2 00	52 00
do do .....	do	Hugh Bailey.....	25½ do ..	1 50	38 25
do do .....	do	Michael Blake.....	25½ do ..	1 50	38 25
do do .....	do	Thos. Waldron.....	9½ do ..	1 50	14 25
do do .....	do	Geo. Nolan.....	8½ do ..	1 50	12 75
do do .....	do	William Pew.....	25½ do ..	1 50	38 25
Cleaning out St. David's road, tunnel, &c.....	do	Geo. Putland.....	4 do ..	1 50	6 00
do do .....	do	Wm. Wells.....	4 do ..	1 50	6 00
do do .....	do	Thos. Donahue.....	4 do ..	1 50	6 00
do do .....	do	Hiram Dell.....	18½ do ..	1 50	27 75
do do .....	do	Thos. Hayden.....	5 do ..	1 50	7 50
do do .....	do	Alex. Winston.....	2 do ..	1 50	3 00
Sharpening and driving piles for new tug Dock, Port Colborne; also cutting off piles and framing waling and stringers, &c.....	do	Wm. Finlin.....	26 do ..	2 25	58 50
do do .....	do	J. Miller.....	25½ do ..	2 00	51 00
do do .....	do	J. J. Hill.....	26 do ..	2 00	52 00
do do .....	do	L. Chase.....	9 do ..	2 00	18 00
do do .....	do	G. Chase.....	9 do ..	2 00	18 00
do do .....	do	J. Chase.....	9 do ..	2 00	18 00
do do .....	do	F. Sherman.....	9½ do ..	1 75	16 62

PAY LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
Sharpening and driving piles for new tug Dock, &c.....	June, 1887	Alfred Finlin.....	26 days...	\$ cts. 1 50	\$ cts. 39 00
do do .....	do	John Sutton.....	26 do ...	1 50	39 00
do do .....	do	Wm. Bradley.....	25½ do ...	1 50	38 25
do do .....	do	Geo. Mathews.....	25½ do ...	1 50	38 25
do do .....	do	Geo B. Jordan.....	26 do ...	1 50	39 00
do do .....	do	John Sutton, horse...	25½ do ...	1 50	38 25
Repairing floats, wheelbarrows and building fences around lock tender's houses, &c.....	do	W. F. Cook.....	26 do ...	2 00	52 00
do do .....	do	Jacob Cook.....	26 do ...	1 50	39 00
do do .....	do	J. Moyer.....	11 do ...	1 50	16 50
Opening up back ditches, hauling brick from G.T.R. station, also stone from surplus pile to face slopes of harbor, &c.....	do	Wm. Deeks.....	18½ do ...	2 00	37 00
do do .....	do	C. Keen.....	9½ do ...	1 50	14 25
do do .....	do	E. Sloat.....	10 do ...	1 50	15 00
do do .....	do	M. Anthes.....	9½ do ...	1 50	14 25
do do .....	do	G. Petrey.....	9½ do ...	1 50	14 25
do do .....	do	H. Brenan.....	10 do ...	1 50	15 00
do do .....	do	J. Melhegan.....	10 do ...	1 50	15 00
do do .....	do	Jas. Leslie.....	4 do ...	1 50	6 00
do do .....	do	John Hartson.....	9 do ...	1 50	13 50
do do .....	do	E. Bradley.....	2 do ...	1 50	3 00
do do .....	do	H. Cook and horse...	3½ do ...	2 00	7 00
do do .....	do	Sam. Cook, team.....	8½ do ...	3 50	29 75
OLD WELLAND CANAL AND FEEDER.					
Repairing and pulling up new approach fences, St. Paul St. Bridge; tearing out decayed inside, bridge tender's house and renewing with new work; repairing bridge to approach near axle factory and re-building float bridge Shickluna ship yard, &c.....	do	N. Morey.....	26½ do ...	2 75	72 87
do do .....	do	P. Shortell.....	25½ do ...	2 00	51 00
do do .....	do	S. Radcliffe.....	26½ do ...	2 00	52 50
do do .....	do	T. Rapsey.....	26 do ...	2 00	52 00
do do .....	do	Chas. Hill, team.....	26 do ...	3 50	91 00
do do .....	do	J.W. Boyle, watchm'n	30 do ...	1 00	30 00
Building retaining wall bridge washed away above Lock 2, Benfield's Crossing; repairing bank lock 4 and putting in paddle chamber, &c.....	do	Thos. O'Neil.....	26 do ...	2 00	52 00
do do .....	do	John Weaver.....	11½ do ...	1 50	16 87
do do .....	do	James Boyle.....	8 do ...	1 50	12 00
do do .....	do	John Hemphill.....	15½ do ...	1 50	23 00
do do .....	do	Wm. Chandler.....	21½ do ...	1 50	32 25
do do .....	do	R. Wilson.....	23½ do ...	1 50	34 87
do do .....	do	Wm. Assell.....	15 do ...	1 25	18 75
do do .....	do	R. Grant.....	24 do ...	1 25	30 00
Quarrying out stone, loading, boating and unloading same for general repairs, &c.....	do	Jas. Hamilton.....	26 do ...	2 00	52 00
do do .....	do	Arthur Bradley.....	24½ do ...	1 50	36 37
do do .....	do	Jas. Faywell.....	24½ do ...	1 50	36 37
do do .....	do	Ab. Bradley.....	23½ do ...	1 50	34 87
do do .....	do	J. Longley.....	24½ do ...	1 50	37 12
do do .....	do	C. Dennis.....	11½ do ...	1 50	16 87
do do .....	do	J. Wanda.....	20½ do ...	1 50	30 75
do do .....	do	J. Brenan.....	19½ do ...	1 50	29 25

**PAY-LIST** in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
<b>Quarrying out stone, &amp;c.....</b>	June, 1887	Wm. Horton.....	9½ days...	1 50	14 25
do do .....	do	Geo. Wilson.....	26 do ...	1 50	39 00
do do .....	do	Jas. Reynard.....	4 do ...	1 50	6 00
do do .....	do	Wm. Gibson.....	4 do ...	1 50	6 00
do do .....	do	Geo. Boyle.....	7 do ...	1 00	10 50
do do .....	do	Chas. Tenbrook, team	23½ do ...	3 50	81 37
<b>General repairs, facing up banks with stone, &amp;c.....</b>	do	Arthur Bradley.....	24 do ...	1 50	36 00
do do .....	do	Patrick Griffin.....	11 do ...	1 50	16 50
do do .....	do	Robt. Pews.....	15½ do ...	1 50	23 25
do do .....	do	Wm. Clarke.....	16 do ...	1 50	24 00
do do .....	do	John Boyle, team.....	1 do ...	3 50	3 50
<b>Rebuilding old lock gates, taking out old and putting in new gates, Lock 24, repairing Hurst's Bridge, &amp;c.....</b>	do	F. T. Walton.....	26 days...	2 75	71 50
do do .....	do	S. R. Bradley.....	25½ do ...	2 00	51 00
do do .....	do	D. S. Walton.....	20½ do ...	2 00	41 00
do do .....	do	Ed. Smith.....	26 do ...	2 00	52 00
do do .....	do	Wm. Dunn.....	25½ do ...	2 00	51 00
do do .....	do	Adam Brown.....	7 do ...	2 00	14 00
do do .....	do	F. Shuman.....	13 do ...	1 75	22 75
do do .....	do	Wm. Klock.....	13 do ...	1 75	22 75
do do .....	do	F. T. Walton, horse and wagon.....	21 do ...	1 50	31 50
<b>DUNNVILLE.</b>					
<b>Painting swing bridge.....</b>	do	T. C. Tipton .....	21½ do ...	1 50	32 25
do .....	do	R. Runchey .....	8 do ...	1 25	10 00
<b>Filling up rat holes and repairing banks, &amp;c.....</b>	do	James Gamble.....	25 do ...	1 25	31 25
do do .....	do	J. Heffernan.....	25½ do ...	1 25	32 19
do do .....	do	R. G. Murdy, team	12 do ...	2 50	30 00
do do .....	do	Thos. McDonald do	2 do ...	2 50	5 00
					3,519 86



## ACCOUNTS chargeable to Welland Canal—Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
June 1-30...	To Coy Bros., St. Catharines—		
	1 pair socks for diver under water.....	2 00	
	9 lbs. cotton sash cord, at 50c.....	4 50	
	4 Chesterman tape lines, 66 and 60.....	5 00	
	4 brls machine oil, 184 galls.....	119 60	
	1 varnish brush, 60c.; 1 varnish, boxed, 90c.....	1 50	
	1 putty knife, 30c.; 1 double block, 10 in., \$7.....	7 30	
			140 80
do 1-30...	John Mathews, Port Colborne—		
	2 pr. butts, at 10c., 20c.; 4 pr. butts, at 8c., 32c.; 4 T latches, at 12½c., 50c.....	1 02	
	4 lbs. F nails, at 8c., 32c.; 3 lbs. yellow ochre, at 5c., 15c.; 1 gross screws, 35c.....	0 82	
	2 gross screws, at 45c., 90c.; 6 sheets sandpaper, 10c.....	1 00	
	25 lbs. wire nails, at 6c., \$1.50; 2 doz. car bolts, at 35c., 70c.....	2 20	
	1 doz. car bolts, 40c.; 2 lbs. washers, at 12½c., 25c.....	0 65	
	1 pr. strap hinges, 23c.; 1 oiler, 20c.; 1 bell, 22c.....	0 65	
	148 lbs. manilla rope, at 12c.....	17 76	
	1 lock, 40c.; 1 pr. hinges, 27c.; 3 prs. butts, 27c.....	0 94	
	3 doz. screws, 18c.; 2 capt. locks, at 15c., 30c.....	0 48	
	1 pr. hinges, 45c.; 3 scythe stones, 30c.....	0 75	
	2 car bolts, 10c.; 11 lbs. hinges, \$1.10.....	1 20	
	2 hooks and staples.....	0 20	
do 4-24...	1 pr. butts, 20c.; 1½ doz. screws, 8c.....	0 28	
	2½ lbs. marline, 42c.; ½ gall. boiled oil, 40c.....	0 82	
	1½ galls. blk. oil, 45c.; paid, sawing, 50c.....	0 95	
	2 axes and helves.....	2 50	
			32 22
do 4-24...	John Mathews, Port Colborne—		
	4½ lbs. butter, 56c.; 11 loaves bread, at 6c., 66c.; 45 lbs. bran, 35c.....	1 57	
	1 box biscuits, 25c.; 2 bunches rhubarb, 10c.....	0 35	
	2 doz. eggs, at 12½c., 25c.; 1 box matches, 15c.; 2 doz. eggs, at 15c., 30c.....	0 70	
	1 bunch onions, 5c.; 2½ lbs. butter, 35c.; 2 lbs. steak, 25c.....	0 65	
	½ bush. potatoes.....	0 25	
	(Above for board on Government scow for men.)		3 52
do ...	A. Deterling, Ridgeway—25,000 brick, at \$7.....		175 00
do 4...	Campbell Sewer Pipe Co., Hamilton—2 6 in. bends, 60c....	1 20	
	LESS—50 per cent off.....	0 60	
			0 60
do 1-30...	Grand Trunk Railway Co., Port Colborne—		
	Freight, 4 cars brick, \$14.40, \$12, \$10, \$12.....	48 40	
	do 2 elbows from Hamilton.....	0 35	
	do 5 prs. jacks, Thorold.....	0 35	
			49 10
June 27...	To Joseph Carroll, St. Catharines—Arranging and putting together 4 light gas illuminating branches for night work at locks.....		6 00
May 28...	A. D. White, Welland—Horse and buggy to Air Line Junction.....		1 50
June 23...	John Shickluna, St. Catharines—Horse and buggy, 1 day..		2 50
	Robert Foster, St. Catharines—		
do 4-29...	Horse and buggy, 5 days, at \$1.50, \$7.50; ½ day, \$1.....	8 50	
do 7-20...	do 3 do 2.50.....	7 50	
	(Above per Wm. Ellis, Supt.)		
do 6-19...	Horse and buggy, 2 days.....	5 00	
			21 00
do 27...	James Weeks, Thorold—Repairing pump sucker.....		1 50
	Archibald McIndoe, Thorold—		
do 23...	Repairing double 10-inch block, new patent brass brush for sheave, new end piece in shell of block.....	1 35	
do 25...	Repairing double 6-inch block, new sheave, 3½ by 1.....	0 40	
			1 75

ACCOUNTS chargeable to Welland Canal—Renewals and Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
June 28...	To E. Riddle & Son, St. Catharines—1 smoke preventive.....		2 75
1886.	D. W. Bixby, St. Catharines—		
Dec. 16...	Diary, 50c., Jan. 7, 1887; almanac, 25c.; diary, 20c.....	0 95	
Mar. 9...	2 pencil sharpeners.....	0 20	
May 17...	32 rolls paper, at 12½c., \$4; 64 yds. border, at 4c., \$2.56	6 56	
do 20...	27 do 10c., \$2.70; 43 do \$2.69.....	5 39	
do 21...	32 do 12½c., \$4; 64 do 4c., \$2 56	6 56	
do 23...	18 do 12½c., \$2.25; 40 do 5½c., 2.20	4 45	
June 13...	68 do 20c., \$13 60; 110 do \$13.35.....	26 95	
do 19...	18 do 12c., \$2.25; 48 do 5c., \$2.40	4 65	
			55 71
	H. Vanderburgh, Allanburgh—		
do 1-30...	22 railway fares, Port Dalhousie and return, at 70c. ....	15 40	
	4 do Thorold and return, at 25c.....	1 00	
			16 40
	Thomas J. Oneil, Port Colborne—	\$ cts.	\$ cts.
	Meals and horse feed for non-resident men and horse while driving piles and framing for new dock, for tugs, Port Colborne—357 meals and horse feed, at 25c. ....		89 25
May 31...	Dickinson & Sness, Port Colborne—		
	Advance on account of construction of canal toll-collector's office and customs house at Port Colborne, as per agreement:—		
	Clearing for building .....	25 00	
	480 cub. yds. excavation in iron, at 30c.....	144 00	
	266 lin. ft. drain laid, at 20c. ....	53 20	
	150 rods masonry, in water, at \$4.....	600 00	
	Excavating for and building cistern and vault .....	177 80	
			1,000 00
June 1-30...	James Wilson, Merritton—		
	1,992 lbs. castings, at 3½c., \$69.72; 60 lbs. brass nuts, at 30c., \$18.....	87 72	
	89 hrs. time, at 40c.....	35 60	
			123 32
do 1-30...	James Rolston, Merritton—		
	123 lbs. rods repaired, at 1½c., \$1.85; 96 lbs. straps repaired, at 2c., \$1.92 .....	3 77	
	1,413 lbs. screw bolts repaired, at 2½c.....	35 33	
	29 pick points, at 4c.....	1 16	
	2,557 lbs. new screw bolts, at 5c .....	127 85	
	9 lbs. steeling, at 6c., 54c.; 35 lbs. new steels, at 20c., \$7.....	7 54	
	20 hours' time, at 40c.....	8 00	
			183 65
do 30...	Thomas Hastings, St. Catharines—		
	Building foundation for Storehouse, Port Dalhousie. Dimensions, 110' x 35', 89' 18 yds., at \$1.....	358 67	
	Building cement foundation for water-tank at Port Dalhousie, 27' 2" x 5' 10" x 3' 9"—22 yds., at \$5.....	110 00	
	100 cut stones, boundary monuments, delivered at Port Robinson, as per contract, at \$3.25 .....	325 00	
			793 67
	<i>Old Welland Canal and Feeder.</i>		
do 1-30...	Coy Bros., St. Catharines—		
	3 sheets sandpaper, 5c.; ¼ doz. screws, 5c.....	0 10	
	1 gross screws, 50c.; 40 lbs. cut nails, at 4c., \$1.60 .....	2 10	
	1 pair butts, 15c.; 10 lbs. brimstone, at 5c., 50c.....	0 65	
			2 85



# ACCOUNTS chargeable to Welland Canal—Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1886.	To James Wilson, Thorold—		
June 1-30...	550 lbs. spike, at 4½c., \$24.75; 5 galls. lard oil, at \$1, \$5.	29 75	
do 1...	4 gross screws, \$1.80; 2 locks, at 40c., 80c.; 2 dozen screws, 10c.....	2 70	
	7 lbs. marline, at 15c., \$1.05; 6 8-in. files, at 30c., \$1.80;	3 05	
	1 ball twine, 20c.....		
	6 bolts, at 6c., 36c.; 11 lbs. washers, at 10c., \$1.10; 2 ship augers, \$2.50	3 96	
	100 nails, \$3.50; 25 lbs. nails, 88c.; 10 lbs. Venetian red, 50c.....	4 88	
	2½ galls. boiled oil, at \$1, \$2.25; 3 lbs. rice, 15c.; ¼ bush. B. potatoes, 50c.....	2 90	
	10 lbs. meat, at 10c., \$1; 3 doz. eggs, 54c.; 1 hay-rake, 10c.....	1 64	
	1 scythe, 90c.; 1 scythe handle, 90c.; 4 scythe stones, 60c. Brick.....	2 40 3 00	
			54 28
	A. Mitchell, St. Catharines—		
	1 brl. water lime.....		1 65
do 1-25...	James Rolston, Dunnville—		
	25 lbs. White lead, at 8c., \$2; 1 can, 25c.....	2 25	
	1 can Venetian red, 15c.; 1 jackscrew and extra nuts, \$6.....	6 15	
	3½ lbs. tarred marline, 70c.; 1 axle, \$1; 1 draw knife, \$1.	2 70	
	2 warding files, 25; T. S. file, 10c.; 15 mixed line, \$1.88..	2 23	
	2 steel nails, 10c.; 3 ship augers, \$3.75; 1 eye auger, 75c.....	4 60	
	Paid freights, \$1.50; 1 helling ring, 10c.; 3 lbs. glue, 9c..	2 50	
	1 whetstone, 10c.; 2 gals. raw oil, \$1.50; putty, 15c.....	1 75	
	10 lbs. putty, 40c.; ½ gal. turpentine, 50c.; ½ gal. black japan, 75.....	1 65	
	1 whetstone.....	0 10	
			23 93
do 1-30	McCleary & McLeod, Thorold—		
	2,637 ft. pine, at \$16, \$42.19; 2,041 ft. pine, at \$18, \$36.74.....	78 93	
	224 ft. pine, at \$23, \$5.15; 200 ft. pine, at \$26, \$5.20....	10 35	
	119 do at \$30, \$3.57; 536 do at \$35, \$18.76....	22 33	
	2,985 ft oak, at \$26, \$74.62; 857 ft. oak, at \$27, \$23.14...	97 76	
	135 do at \$28, \$3.78; 27 do at \$30, \$8.1.....	4 59	
	600 ft. lattice, at \$5, \$3; 2 cedar posts, at \$20, \$4.....	7 00	
	Dressing and tapering oak stick.....	1 50	
			222 46
Jan. 14-20...	Charles McDermott & Co., St. Catharines—		
	2 steel ice chisels, \$2; repairing 15 ice chisels, \$4.75.....	6 75	
	repairing 2 burs, 50c.; repairing 1 bur, 25c.....	0 75	
	do 4 chisels.....	1 00	
			8 50
June 30...	John Bradley, Merritton—Selecting stone from spoil banks, near Humberstone; breaking, loading and boating; unloading and trimming same along banks of feeder, where banks washed out, 464 yards, &c. at \$1.10.....		510 40
May 30-31...	F. H. Becker, Thorold—		
June 26-27-28	50 meals and 12 beds (62), at 25c.....	15 50	
	171 meals.....	42 75	
	Above for men working night and day and Sunday at Lock 24, while navigation was stopped by lock gate sill, &c., out of order.		58 25
			3,582 56



## STAFF AND WORKING EXPENSES.

FROM 1ST JULY, 1887, TO 31ST DECEMBER, 1887.

PAY-LIST in duplicate of persons employed on the Old Welland Canal and Feeder during the month of July, 1887, to pay Permanent Establishment, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Overseer .....	July, 1887	J. B. ....	1 month...	100 00	100 00
Master, Lock 1 and Bridge.....	do	J. B. Smyth. ....	1 do ...	42 00	42 00
Assistant.....	do	B. Merrit. ....	1 do ...	42 00	42 00
do .....	do	John Woodall. ....	1 do ...	42 00	42 00
do .....	do	R. Hadgraft. ....	1 do ...	42 00	42 00
Master, Lock 2 and Bridge.....	do	John House. ....	1 do ...	42 00	42 00
Assistant.....	do	W. Weaver. ....	1 do ...	42 00	42 00
do .....	do	T. Johnson. ....	1 do ...	42 00	42 00
do .....	do	W. H. Charles. ....	1 do ...	42 00	42 00
St. Paul Street Bridge.....	do	John Sullivan. ....	1 do ...	42 00	42 00
Assistant.....	do	W. McClorey. ....	1 do ...	38 00	38 00
Master, Lock 3.....	do	Tim. Sullivan. ....	1 do ...	38 00	38 00
Assistant.....	do	Alex. Walker. ....	1 do ...	38 00	38 00
do .....	do	Fred. Shirer. ....	1 do ...	38 00	38 00
Master, Lock 4 and Bridge.....	do	Jas. Livingstone. ....	1 do ...	42 00	42 00
Assistant.....	do	James Boyle. ....	1 do ...	42 00	42 00
Master, Locks 5, 6, 7 and Bridge..	do	Robert Boyle. ....	1 do ...	42 00	42 00
Assistant.....	do	Michael White. ....	1 do ...	42 00	42 00
Master, Locks 8, 9, 10 and 11.....	do	B. Clarke. ....	1 do ...	38 00	38 00
Assistant.....	do	C. W. Bradley. ....	1 do ...	38 00	38 00
Master, Locks 12, 13, 14 and 15...	do	James Cagan. ....	1 do ...	38 00	38 00
Assistant.....	do	Martin Nestor. ....	1 do ...	38 00	38 00
Master, Locks 16, 17 and 18.....	do	B. Darby. ....	1 do ...	38 00	38 00
Assistant.....	do	R. Gibson. ....	1 do ...	38 00	38 00
Master, Locks 19, 20 and 21.....	do	E. McLaughlin. ....	1 do ...	38 00	38 00
Assistant.....	do	Robt. Bradley. ....	1 do ...	38 00	38 00
Master, Lock 22 and Bridge. ....	do	John McNamara. ....	1 do ...	38 00	38 00
Assistant.....	do	A. W. Bradley. ....	1 do ...	38 00	38 00
Master, Lock 23, 24 and Bridge...	do	John Neil. ....	1 do ...	42 00	42 00
Assistant.....	do	D. Ryckman. ....	1 do ...	38 00	38 00
Master, Lock 25 and Guard Lock.	do	John Fluellyan. ....	1 do ...	38 00	38 00
Assistant.....	do	Rufus Swazzie. ....	1 do ...	38 00	38 00
Hurst's Bridge.....	do	Jacob Renter. ....	1 do ...	38 00	38 00
Marlatt's do .....	do	Nelson Higgins. ....	1 do ...	38 00	38 00
Allanburgh Bridge.....	do	A. H. Upper. ....	1 do ...	38 00	38 00
do Lock .....	do	Wm. Higgins. ....	1 do ...	38 00	38 00
Assistant.....	do	Lewis Mosier. ....	1 do ...	38 00	38 00
Allanburgh Guard Lock .....	do	Aaron Higgins. ....	1 do ...	38 00	38 00
Assistant.....	do	Oscar Upper. ....	1 do ...	38 00	38 00
Foreman on banks.....	do	John Gearin. ....	1 do ...	38 00	38 00
<i>Feeder Division.</i>					
Overseer.....	do	John E. Scott. ....	1 do ...	800 00	66 67
Junction Lock.....	do	Geo. Hannah. ....	1 do ...	38 00	38 00
Feeder F. Bridge.....	do	John Henderson. ....	1 do ...	10 00	10 00
Stromness Bridge.....	do	George Harris. ....	1 do ...	38 00	38 00
Port Maitland Lock.....	do	M. Corcoran. ....	1 do ...	38 00	38 00
Assistant.....	do	Wm. Brennan. ....	1 do ...	38 00	38 00
Regulating water at Dunnville...	do	Chas. Thrush. ....	1 do ...	38 00	38 00

**ACCOUNTS chargeable to Old Welland and Feeder Canal, Staff and Working Expenses.**

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
July 1-30...	To Dunnville Electric Lighting Co., Dunnville—Lighting swing bridge and guard lock .....		10 34
do 1-30...	G.N.W. Telegraph Co., Dunnville—To telegrams during month .....		1 80
			12 14

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of July, 1887, to pay Permanent Establishment and accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed.	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Superintendent .....	July, 1887.	Wm. Ellis .....	1 month...	2,900 00	241 67
Paymaster .....	do	R. D. Dunn .....	1 do	1,400 00	116 67
Accountant .....	do	J. E. Lawrence .....	1 do	1,000 00	83 33
Harbor master—Pt. Dalhousie...	do	Wm. Cook .....	1 do	750 00	62 50
do Pt. Colborne .....	do	C. H. Carter .....	1 do	750 00	62 50
Overseers—Division No. 1 .....	do	J. G. Demare .....	1 do	100 00	100 00
do do 2 .....	do	Jas. Dell .....	1 do	75 00	75 00
do do 3 .....	do	A. Hamilton .....	1 do	60 00	60 00
do do 4 .....	do	J. R. Secord .....	1 do	65 00	65 00
Storekeeper, &c. ....	do	W. W. Wait .....	1 do	65 00	65 00
Messenger, &c. ....	do	Thos. J. Hartley .....	31 days...	1 25	38 75
In charge of steel and iron bridges, also steam pumps, &c. ....	do	W. Chatfield .....	1 do	75 00	75 00
<i>Division No. 1.</i>					
Ferryman .....	July, 1887	F. Smith .....	26 days...	1 40	36 40
Master, Lock 1 .....	do	J. W. Woodall .....	1 month...	42 00	42 00
Assistant .....	do	Geo. Howe .....	1 do	45 00	45 00
do .....	do	Jno. Paxton .....	1 do	45 00	45 00
do .....	do	Jno. Williams .....	1 do	45 00	45 00
Master, Bridge 1 .....	do	F. Darby .....	1 do	45 00	45 00
Assistant .....	do	P. Ohnith .....	1 do	45 00	45 00
Master, Lock 2 .....	do	Alp. Kelley .....	1 do	47 00	47 00
Assistant .....	do	W. T. Smith .....	1 do	45 00	45 00
do .....	do	Geo. Bowman .....	1 do	45 00	45 00
do .....	do	Richard Hutton .....	1 do	45 00	45 00
Master, Lock 3 .....	do	Isaac Johnston .....	1 do	47 00	47 00
Assistant .....	do	James Keys .....	1 do	45 00	45 00
do .....	do	Con. Gorman .....	1 do	45 00	45 00
do .....	do	Jas. Grogan .....	1 do	45 00	45 00
Master, Bridge 2 .....	do	John Flynn .....	1 do	45 00	45 00
Assistant .....	do	H. Alexander .....	1 do	45 00	45 00
Master, Lock 4 .....	do	Jas. Franklin .....	1 do	47 00	47 00
Assistant .....	do	Samuel Hopkins .....	1 do	45 00	45 00
do .....	do	Samuel Duffin .....	1 do	45 00	45 00
do .....	do	Wm. Altoft .....	1 do	45 00	45 00
Master, Lock 5 .....	do	Thos. Scott .....	1 do	47 00	47 00
Assistant .....	do	Jno. Pennington .....	1 do	45 00	45 00
do .....	do	Thos. Jones .....	1 do	45 00	45 00
do .....	do	John Wilde .....	1 do	45 00	45 00
Master, Bridge 3 .....	do	G. H. Brownell .....	1 do	45 00	45 00



PAY LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
					\$ cts.
Assistant.....	July, 1887	M. Morarity.....	1 month...	45 00	45 00
Master, Lock 6.....	do	Peter Paxton.....	1 do	47 00	47 00
Assistant.....	do	John Daley.....	1 do	45 00	45 00
do	do	Chas. Newbold.....	1 do	45 00	45 00
do	do	G. W. Bowman.....	1 do	45 00	45 00
Master, Bridge 5.....	do	Wm. Elliott.....	1 do	45 00	45 00
Assistant.....	do	Geo. Spooner.....	1 do	45 00	45 00
Master, Lock 7.....	do	C. B. Hare.....	1 do	47 00	47 00
Assistant.....	do	M. Sullivan.....	1 do	45 00	45 00
do	do	Wm. Boyle.....	1 do	45 00	45 00
do	do	R. Freeman.....	1 do	45 00	45 00
Master, Bridge 6.....	do	J. W. Grant.....	1 do	45 00	45 00
Assistant.....	do	Alex. Stewart.....	1 do	45 00	45 00
Master, Lock 8.....	do	Nich. Hayden.....	1 do	47 00	47 00
Assistant.....	do	Wm. Reid.....	1 do	45 00	45 00
do	do	R. Secord.....	1 do	45 00	45 00
do	do	M. McCormick.....	1 do	45 00	45 00
Master, Lock 9.....	do	R. H. Watson.....	1 do	47 00	47 00
Assistant.....	do	Geo. Millward.....	1 do	45 00	45 00
do	do	J. C. Longley.....	1 do	45 00	45 00
do	do	Alex. Bradley.....	1 do	45 00	45 00
Master, Bridge 7.....	do	Jas. Whitten.....	1 do	45 00	45 00
Assistant.....	do	Jno. Cushman.....	1 do	45 00	45 00
Master, Lock 10.....	do	James Bradley.....	1 do	47 00	47 00
Assistant.....	do	Jas. Mulvey.....	1 do	45 00	45 00
do	do	Henry Hare.....	1 do	45 00	45 00
do	do	Thos. Nelson.....	1 do	45 00	45 00
Master, Bridge 8.....	do	Arthur Cain.....	1 do	45 00	45 00
Assistant.....	do	Jno. McGearchie.....	1 do	45 00	45 00
Master, Lock 11.....	do	Jas. Reynolds.....	1 do	47 00	47 00
Assistant.....	do	Alex. Wilson.....	1 do	45 00	45 00
do	do	W. P. Burleigh.....	1 do	45 00	45 00
do	do	James Hebster.....	1 do	45 00	45 00
Master, Lock 12.....	do	Wm. Strong.....	1 do	47 00	47 00
Assistant.....	do	E. Bradley.....	1 do	45 00	45 00
do	do	F. Meigham.....	1 do	45 00	45 00
do	do	Jas. McBride.....	1 do	45 00	45 00
Master, Lock 13.....	do	Thos. Keating.....	1 do	47 00	47 00
Assistant.....	do	Jos. Turner.....	1 do	45 00	45 00
do	do	Alex. Soper.....	1 do	45 00	45 00
do	do	John Sewin.....	1 do	45 00	45 00
<i>Division 2.</i>					
Master, Bridge 9.....	do	Peter Secord.....	1 do	45 00	45 00
Assistant.....	do	John Black.....	1 do	45 00	45 00
Master, Lock 14.....	do	Con. Nestor.....	1 do	47 00	47 00
Assistant.....	do	Abe Brennan.....	1 do	45 00	45 00
do	do	John Strong.....	1 do	45 00	45 00
do	do	Thos. Flynn.....	1 do	45 00	45 00
Master, Lock 15.....	do	Thos. Aikens.....	1 do	47 00	47 00
Assistant.....	do	Jas. McAuley.....	1 do	45 00	45 00
do	do	W. J. Wilson.....	1 do	45 00	45 00
do	do	Robt. Boyle.....	1 do	45 00	45 00
Master, Lock 16.....	do	Thos. Burley.....	1 do	47 00	47 00
Assistant.....	do	Samuel Bradley.....	1 do	45 00	45 00
do	do	John Holland.....	1 do	45 00	45 00
do	do	Austin Moran.....	1 do	45 00	45 00
Master, Lock 17.....	do	Michael Coody.....	1 do	47 00	47 00
Assistant.....	do	F. Shuman.....	1 do	45 00	45 00
do	do	Michael Glynn.....	1 do	45 00	45 00
do	do	Walter Galbraith.....	1 do	45 00	45 00
Master, Lock 18.....	do	J. H. Pearson.....	1 do	47 00	47 00
Assistant.....	do	Geo. Newton.....	1 do	45 00	45 00
do	do	Thos. Hanna.....	1 do	45 00	45 00
do	do	Joseph Cook.....	1 do	45 00	45 00



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c — *Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 2.—Con.</i>				\$ cts.	\$ cts.
Master, Lock 19 .....	July, 1887	R. Grisdale.....	1 month...	47 00	47 00
Assistant.....	do	F. Johnson.....	1 do	45 00	45 00
do .....	do	F. Hoschke.....	1 do	45 00	45 00
do .....	do	R. Grenville.....	1 do	45 00	45 00
Master, Lock 20.....	do	Jacob Reuteur.....	1 do	47 00	47 00
Assistant.....	do	Isaac McMann.....	1 do	45 00	45 00
do .....	do	John Collins.....	1 do	45 00	45 00
do .....	do	Thos. Freel.....	1 do	45 00	45 00
Master, Lock 21.....	do	F. C. Berrimen.....	1 do	47 00	47 00
Assistant.....	do	John Cole.....	1 do	45 00	45 00
do .....	do	James Ellis.....	1 do	45 00	45 00
do .....	do	Adelbert Clark.....	1 do	45 00	45 00
Master, Lock 22.....	do	Wm. Hannah.....	1 do	47 00	47 00
Assistant.....	do	Wm. Camp.....	1 do	45 00	45 00
do .....	do	Wm. Boyle.....	1 do	45 00	45 00
do .....	do	Henry Philips.....	1 do	45 00	45 00
Master, Lock 23.....	do	I. Bonewell.....	1 do	47 00	47 00
Assistant.....	do	Jas. Smerdon.....	1 do	45 00	45 00
do .....	do	I. Cornmanford.....	1 do	45 00	45 00
do .....	do	John Corbett.....	1 do	45 00	45 00
Master, Lock 24.....	do	R. Campbell.....	1 do	47 00	47 00
Assistant.....	do	M. Henderson.....	1 do	45 00	45 00
do .....	do	Thos. Bradley.....	1 do	45 00	45 00
do .....	do	Henry Kerms.....	1 do	45 00	45 00
Master, Bridge 10.....	do	Wm. Fleming.....	1 do	45 00	45 00
Assistant.....	do	F. Galbraith.....	1 do	45 00	45 00
Master, Lock 25.....	do	M. McCarthy.....	1 do	47 00	47 00
Assistant.....	do	Geo. Dellor.....	1 do	45 00	45 00
do .....	do	Samuel Campbell.....	1 do	45 00	45 00
do .....	do	Robt. Wright.....	1 do	45 00	45 00
Master, Bridge 12.....	do	Geo. A. Thomas.....	1 do	45 00	45 00
Assistant.....	do	Robt. Camp.....	1 do	45 00	45 00
Master, Guard Lock.....	do	James Winton.....	1 do	47 00	47 00
Assistant.....	do	Frederick Lay.....	1 do	45 00	45 00
do .....	do	Samuel Frazer.....	1 do	45 00	45 00
do .....	do	James Cook.....	1 do	45 00	45 00
Master, Bridge 13.....	do	Richard A. Higgins..	1 do	45 00	45 00
Assistant.....	do	William Upper.....	1 do	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14.....	do	D. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	Geo. A. Upper.....	1 do	40 00	40 00
Master, Bridge 15.....	do	Bart. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	Geo. Thompson.....	1 do	45 00	45 00
Port Robinson Ferry.....	do	R. Stevenson.....	1 do	36 00	36 00
do Lock.....	do	James McCloppin.....	1 do	47 00	47 00
Assistant.....	do	James Walsh.....	1 do	45 00	45 00
Master, Bridge 16.....	do	James Edmond.....	1 do	45 00	45 00
Assistant.....	do	Geo. P. Misner.....	1 do	45 00	45 00
<i>Division No. 4.</i>					
Welland Lock.....	do	Wm. Wilson.....	1 do	45 00	45 00
Master, Bridge 17.....	do	James Foster.....	1 do	45 00	45 00
Assistant.....	do	L. J. Brennan.....	1 do	45 00	45 00
Master, Bridge 19.....	do	Chas. Hannah.....	1 do	45 00	45 00
Assistant.....	do	Alex. Hannah.....	1 do	45 00	45 00
Humberstone Ferry.....	do	Michael Traynor.....	1 do	36 00	36 00
Master, Bridge 21.....	do	Emil Bonaberg.....	1 do	45 00	45 00
Assistant.....	do	Isaac Shisler.....	1 do	45 00	45 00
Port Colborne Lock and Bridge...	do	John Henshaw.....	1 do	42 00	42 00
do do .....	do	John Cook.....	1 do	42 00	42 00
do do .....	do	John Stevens.....	1 do	42 00	42 00

PAY LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	1887.			\$ cts.	\$ cts.
Port Colborne Lock and Bridge...	July 1887	Wm. Aikens.....	1 month...	42 00	42 00
do do	do	J. Dunlap.....	1 do	42 00	42 00
do Ferry .....	do	John Bradley.....	1 do	42 00	42 00
Signalling and controlling safe passage of vessels and steamers through aqueduct at Welland, night and day .....	do	J. S. McMurray.....	31 days...	1 50	46 50
do do	do	James Nixon .....	31 do	1 50	46 50
do do	do	Robt. Simpson.....	31 do	1 50	46 50
do do	do	Wm. Nixon..	31 do	1 50	46 50
<b>MACHINISTS.</b>					
<i>Division Nos. 1 and 2.</i>					
Keeping machinery connected with the lock gate and waste weirs in proper order throughout Divisions Nos. 1 and 2.....	do	Samuel Houston .....	29 do	2 00	58 00
do do	do	Wm. Mossip .....	27 do	2 00	55 00
do do	do	E. Newal, h. and wg.	25 do	1 50	38 25
do do	do	John McMillan.....	28 do	2 00	56 00
do do	do	Thos. Ryan.....	26 do	1 75	45 50
do do	do	J. H. Booth, h. & wg.	27 do	1 50	41 25
Diver.....	do	Ed. Smiley.....	27 do	2 00	54 00
					8,328 82

## ACCOUNTS Chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
July 1-30...	To G. N. W. Telegraph Co., St. Catharines—Telegrams per original account.....		11 28
do 30...	G. N. W. Telegraph Co., R. A. Abbey, Agent, Port Robinson—Telegrams from May to date.....		1 45
do 1-30...	Canadian Pacific Telegraph Co., St. Catharines—Telegrams for July.....		1 57
do 1-30...	E. F. Dwyer, Port Dalhousie—Telegrams per account received.....		1 29
do 1-30...	Bell Telephone Co., St. Catharines—Messages per account received.....		4 00
do 1-31...	Bell Telephone Co., Welland—Conversations during month July, &c.....		6 85
do 1-31...	Bell Telephone Co., Port Colborne—Messages, &c., as per account received.....		9 30
do 30...	B. C. Fairfield, St. Catharines—Postage stamps.....		4 00
do 30...	Canadian Bank Commerce, St. Catharines—Telegrams re credit May, June, July.....		2 00

## ACCOUNTS Chargeable to Welland Canal, Staff and Working Expenses—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
July 28...	St. Catharines Welland Canal Gas Light Co., St. Catharines—Installments on contract for lighting new canal with gas.....		5,000 00
do 30...	To Wm. Chelno, St. Catharines—178 gallons coal oil, at 26c.....		46 28
do 30...	R. A. Abbey, Port Robinson— 12 gals. coal oil, at 30c., \$3.60; ½ gal. machine oil, 40c.. ½ dozen lamp chimneys.....	4 00 0 45	4 45
do 1-30...	W. N. Gardner, Welland— 18 gals. coal oil, at 30c., \$5.40; 2 boxes of matches, 30c.. ½ gal. lard oil, 50c.; 1 light glass, 5c.; 1 package tacks, 5c.. .....	5 70 0 60	6 30
do 1-30...	John Mathews, Port Colborne—1 gal. lard oil, \$1; 12 gals. coal oil, at 30c., \$3.60.....		4 60
do 11...	H. Jarvis & Co., St. Catharines— 1 Dominion ensign, 28 feet..... Repairing flag ..... 6 yards bunting .....	32 00 1 50 1 80	35 30 3 00
do 4...	Beckett & Co., St. Catharines—1 slip ladder for office.....		3 00
do 2...	H. Carlisle & Co., St. Catharines— 13 window rollers, at 50c..... 13 tassels, at 9c, \$1.17; 7 yds. cord, at 2c., 14c.....	6 50 1 31	7 81
do 1-30...	A. Thompson, Welland—4½ weeks' board and lodging for C. H. Carter, in charge of aqueduct at Welland, at \$4.....		17 70
do 1-31...	W. W. Wait, St. Catharines—To service of horse and wagon for delivering supplies to and from canal store house.....		20 00
do 19...	R. D. Dunn, Paymaster, St. Catharines— Horse and waggon 1 day along canal paying men..... do 1 day, \$2.50; expenses horse and assistant, \$1.....	2 50 3 50	
do 22-23...	Railway fares and hack hire, Welland and return..... do do Port Colborne, Dunnville and return..... 3 days' board, &c., away from home paying men and accounts, at \$3.....	1 65 3 00 9 00	19 65
do 1-31...	Grand Trunk Railway Co., St. Catharines—1 month's expenses for 8 railway bridge tenders, St. Catharines and Thorold, at \$45.....		360 00
do 31...	The Journal Printing Co., St. Catharines—To advertising list of vessels passing through Lock 7, Welland Canal, 283 lines at 4c.....		11 32
			5,578 15



PAY-LIST in duplicate of persons employed on the Welland Canal during the month of August, 1887, to pay Permanent Establishment and Accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time	Rate.	Amount.
				\$ cts.	\$ cts.
Superintendent.....	Aug., 1887	Wm. Ellis.....	1 month..	2,900 00	241 67
Paymaster.....	do	R. D. Dunn.....	1 do	1,400 00	116 67
Accountant.....	do	J. E. Lawrence.....	1 do	1,000 00	83 33
Harbor Masters—					
Port Dalhousie.....	do	Wm. Cook.....	1 do	750 00	62 50
Port Colborne.....	do	C. H. Carter.....	1 do	750 00	62 50
Overseers—					
Division No. 1.....	do	J. G. Demare.....	1 do	100 00	100 00
do 2.....	do	Jas. Dell.....	1 do	75 00	75 00
do 3.....	do	A. Hamilton.....	1 do	60 00	60 00
do 4.....	do	T. R. Secord.....	1 do	65 00	65 00
Storekeeper, &c.....	do	W. W. Wait.....	1 do	65 00	65 00
Messenger, &c.....	do	Thos. J. Hartley.....	31 days....	1 25	38 75
In charge of steel and iron bridges, also steam pipes, &c.....	do	W. Chatfield.....	1 month..	75 00	75 00
<i>Division No. 1.</i>					
Port Dalhousie Ferry.....	do	Frank Smith.....	27 days....	1 40	37 80
Master, Lock 1.....	do	J. W. Woodall.....	1 month..	42 00	42 00
Assistant.....	do	George Howe.....	1 do	45 00	45 00
do	do	John Paxton.....	1 do	45 00	45 00
do	do	Thos. Williams.....	1 do	45 00	45 00
Master, Bridge 1.....	do	Frank Darby.....	1 do	45 00	45 00
Assistant.....	do	Phil. Ohnith.....	1 do	45 00	45 00
Master, Lock 2.....	do	Alph. Kelly.....	1 do	47 00	47 00
Assistant.....	do	Geo. Bowman.....	1 do	45 00	45 00
do	do	Wm. L. Smith.....	1 do	45 00	45 00
do	do	Rich. Hatton.....	1 do	45 00	45 00
Master, Lock 3.....	do	Isaac Johnston.....	1 do	47 00	47 00
Assistant.....	do	James Keys.....	1 do	45 00	45 00
do	do	Con. Gorman.....	1 do	45 00	45 00
do	do	Jas. Grogan.....	1 do	45 00	45 00
Master, Bridge 2.....	do	John Flynn.....	1 do	45 00	45 00
Assistant.....	do	H. Alexander.....	1 do	45 00	45 00
Master, Lock 4.....	do	Jos. Franklin.....	1 do	47 00	47 00
Assistant.....	do	Saml Hopkins.....	1 do	45 00	45 00
do	do	Saml. Duffin.....	1 do	45 00	45 00
do	do	Wm. Altoff.....	1 do	45 00	45 00
Master, Lock 5.....	do	Thos. Scott.....	1 do	47 00	47 00
Assistant.....	do	John Pennington.....	1 do	45 00	45 00
do	do	Thomas Jones.....	1 do	45 00	45 00
do	do	John Wilde.....	1 do	45 00	45 00
Master, Bridge 3.....	do	G. H. Brownlee.....	1 do	45 00	45 00
Assistant.....	do	M. Morarity.....	1 do	45 00	45 00
Master, Lock 6.....	do	Peter Paxton.....	1 do	47 00	47 00
Assistant.....	do	John Daley.....	1 do	45 00	45 00
do	do	Chas. Newbold.....	1 do	45 00	45 00
do	do	W. Bowman.....	1 do	45 00	45 50
Master, Bridge 5.....	do	Wm. Elliott.....	1 do	45 00	45 00
Assistant.....	do	Geo. Spooner.....	1 do	45 00	45 00
Master, Lock 7.....	do	C. B. Hare.....	1 do	47 00	47 00
Assistant.....	do	M. Sullivan.....	1 do	45 00	45 00
do	do	Wm. Boyle.....	1 do	45 00	45 00
do	do	R. Freeman.....	1 do	45 00	45 00
Master, Bridge 6.....	do	Jas. W. Grant.....	1 do	45 00	45 00
Assistant.....	do	Alex. Stewart.....	1 do	45 00	45 00
Master, Lock 8.....	do	Mich Hayden.....	1 do	47 00	47 00
Assistant.....	do	Wm. Reed.....	1 do	45 00	45 00
do	do	Robt. Secord.....	1 do	45 00	45 00
do	do	M. McCormick.....	1 do	45 00	45 00
Master, Lock 9.....	do	R. H. Watson.....	1 do	47 00	47 00
Assistant.....	do	Geo. Millward.....	1 do	45 00	45 00
do	do	Jos. C. Longley.....	1 do	45 00	45 00
do	do	Alex. Broadt.....	1 do	45 00	45 00

PAY LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 1—Con.</i>				\$ cts.	\$ cts.
Master, Bridge 7.....	Aug., 1887	John Cushman .....	1 month..	45 00	45 00
Assistant.....	do ..	James Whitten .....	1 do ..	45 00	45 00
Master, Lock 10.....	do ..	James Bradley.....	1 do ..	47 00	47 00
Assistant.....	do ..	James Mulvey.....	1 do ..	45 00	45 00
do .....	do ..	Henry Hare.....	1 do ..	45 00	45 00
do .....	do ..	Thomas Nelson.....	1 do ..	45 00	45 00
Master, Bridge 8.....	do ..	Arthur Cain.....	1 do ..	45 00	45 00
Assistant.....	do ..	John McGeachie.....	1 do ..	45 00	45 00
Master, Lock 11.....	do ..	James Reynolds.....	1 do ..	47 00	47 00
Assistant.....	do ..	Alex. Wilson.....	1 do ..	45 00	45 00
do .....	do ..	W. P. Burleigh.....	1 do ..	45 00	45 00
do .....	do ..	James Webster.....	1 do ..	45 00	45 00
Master, Lock 12.....	do ..	Wm. Strong.....	1 do ..	47 00	47 00
Assistant.....	do ..	E. Bradley.....	1 do ..	45 00	45 00
do .....	do ..	F. Mugham.....	1 do ..	45 00	45 00
do .....	do ..	James McBride.....	1 do ..	45 00	45 00
Master, Lock 13.....	do ..	Thos. Keating.....	1 do ..	47 00	47 00
Assistant.....	do ..	Jos. Turner.....	1 do ..	45 00	45 00
do .....	do ..	Alex. Soper.....	1 do ..	45 00	45 00
do .....	do ..	John Lewin.....	1 do ..	45 00	45 00
<i>Division No. 2.</i>					
Master, Bridge 9.....	do ..	Peter Secord.....	1 do ..	45 00	45 00
Assistant.....	do ..	John Black.....	1 do ..	45 00	45 00
Master, Lock 14.....	do ..	Con. Nestor.....	1 do ..	47 00	47 00
Assistant.....	do ..	Thomas Flynn.....	1 do ..	45 00	45 00
do .....	do ..	John Strong.....	1 do ..	45 00	45 00
do .....	do ..	Abr. Brennan.....	1 do ..	45 00	45 00
Master, Lock 15.....	do ..	Thomas Aikens.....	1 do ..	47 00	47 00
Assistant.....	do ..	James McAuley.....	1 do ..	45 00	45 00
do .....	do ..	W. J. Wilson.....	1 do ..	45 00	45 00
do .....	do ..	Robert Boyle.....	1 do ..	45 00	45 00
Master, Lock 16.....	do ..	Thomas Butley.....	1 do ..	47 00	47 00
Assistant.....	do ..	Saml. Bradley.....	1 do ..	45 00	45 00
do .....	do ..	Austin Moran.....	1 do ..	45 00	45 00
do .....	do ..	John Holland.....	1 do ..	45 00	45 00
Master, Lock 17.....	do ..	Mich. Coady.....	1 do ..	47 00	47 00
Assistant.....	do ..	F. Shannon.....	1 do ..	45 00	45 00
do .....	do ..	Mich. Flynn.....	1 do ..	45 00	45 00
do .....	do ..	W. Galbraith.....	1 do ..	45 00	45 00
Master, Lock 18.....	do ..	Jas. S. Pearson.....	1 do ..	47 00	47 00
Assistant.....	do ..	Geo. Newton.....	1 do ..	45 00	45 00
do .....	do ..	Thomas Hanna.....	1 do ..	45 00	45 00
do .....	do ..	Joseph Cook.....	1 do ..	45 00	45 00
Master, Lock 19.....	do ..	R. Grisdale.....	1 do ..	47 00	47 00
Assistant.....	do ..	Fred. Johnson.....	1 do ..	45 00	45 00
do .....	do ..	Fred. Hosccke.....	1 do ..	45 00	45 00
do .....	do ..	R. Grenville.....	1 do ..	45 00	45 00
Master, Lock 20.....	do ..	Jacob Renter.....	1 do ..	47 00	47 00
Assistant.....	do ..	Isaac McMann.....	1 do ..	45 00	45 00
do .....	do ..	John Collins.....	1 do ..	45 00	45 00
do .....	do ..	Thomas Freel.....	1 do ..	45 00	45 00
Master, Lock 21.....	do ..	F. C. Berriman.....	1 do ..	47 00	47 00
Assistant.....	do ..	John Cole.....	1 do ..	45 00	45 00
do .....	do ..	James Elli.....	1 do ..	45 00	45 00
do .....	do ..	Adelbert Clarke.....	1 do ..	45 00	45 00
Master, Lock 22.....	do ..	Wm. Hannah.....	1 do ..	47 00	47 00
Assistant.....	do ..	Wm. Camp.....	1 do ..	45 00	45 00
do .....	do ..	Hy. Phillips.....	1 do ..	45 00	45 00
do .....	do ..	Wm. Boyle.....	1 do ..	45 00	45 00
Master, Lock 23.....	do ..	Thos. Bonewell.....	1 do ..	47 00	47 00
Assistant.....	do ..	Jas. Smerdon.....	1 do ..	45 00	45 00
do .....	do ..	J. Commarford.....	1 do ..	45 00	45 00
do .....	do ..	John Corbett.....	1 do ..	45 00	45 00



PAY LIST in duplicate of persons employed on the Welland Canal—*Continued*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 2—Con.</i>					
Master, Lock 24.....	Aug., 1887	K. Campbell.....	1 month...	\$ 47 00	\$ 47 00
Assistant.....	do	M. Henderson.....	1 do ...	45 00	45 00
do .....	do	J. Bradley.....	1 do ...	45 00	45 00
do .....	do	Henry Kerns.....	1 do ...	45 00	45 00
Master, Bridge 10.....	do	Wm. Flemming.....	1 do ...	45 00	45 00
Assistant.....	do	J. Galbraith.....	1 do ...	45 00	45 00
Master, Lock 25.....	do	M. McCarthy.....	1 do ...	47 00	47 00
Assistant.....	do	Geo. Detton.....	1 do ...	45 00	45 00
do .....	do	Saml. Campbell .....	1 do ...	45 00	45 00
do .....	do	Robt. Wright.....	1 do ...	45 00	45 00
Master, Bridge 12.....	do	Robt. Camp .....	1 do ...	45 00	45 00
Assistant.....	do	Geo. A. Thomas.....	1 do ...	45 00	45 00
Master, Guard Lock.....	do	James Winton.....	1 do ...	47 00	47 00
Assistant.....	do	Saml. Frazer.....	1 do ...	45 00	45 00
do .....	do	Fred. Lay.....	1 do ...	45 00	45 00
do .....	do	James Cook.....	1 do ...	45 00	45 00
Master, Bridge 13.....	do	Rich. Higgins.....	1 do ...	45 00	45 00
Assistant.....	do	William Upper.....	1 do ...	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14.....	do	Danl. O'Leary.....	1 do ...	45 00	45 00
Assistant.....	do	Geo. A. Upper.....	1 do ...	40 00	40 00
Master, Bridge 15.....	do	Bart O'Leary.....	1 do ...	45 00	45 00
Assistant.....	do	Geo. Thompson.....	1 do ...	45 00	45 00
Port Robinson Ferry .....	do	R. Stevenson.....	1 do ...	36 00	36 00
do Lock .....	do	James McCoppen.....	1 do ...	47 00	47 00
Assistant.....	do	James Walsh.....	1 do ...	45 00	45 00
Master, Bridge 16.....	do	James Edwards.....	1 do ...	45 00	45 00
Assistant.....	do	Geo. P. Miner.....	1 do ...	45 00	45 00
<i>Division No. 4.</i>					
Welland Lock.....	do	William Wilson.....	1 do ...	45 00	45 00
Master, Bridge 17.....	do	James Foster.....	1 do ...	45 00	45 00
Assistant.....	do	Luke J. Brennan.....	1 do ...	45 00	45 00
Master, Bridge 19.....	do	Chas. Hannah.....	1 do ...	45 00	45 00
Assistant.....	do	Alex. Hannah.....	1 do ...	45 00	45 00
Humber's Ferry.....	do	Michael Trayner.....	1 do ...	36 00	36 00
Master, Bridge 21.....	do	E. Bonabery.....	1 do ...	45 00	45 00
Assistant.....	do	Isaac Shisler.....	1 do ...	45 00	45 00
Port Colborne Lock and Bridge..	do	John Henshow.....	1 do ...	42 00	42 00
do do .....	do	John Cook.....	1 do ...	42 00	42 00
do do .....	do	John Stevens.....	1 do ...	42 00	42 00
do do .....	do	Wm. Aikens.....	1 do ...	42 00	42 00
do do .....	do	J. Dunlap.....	1 do ...	42 00	42 00
Port Colborne Ferry.....	do	John Bradley.....	1 do ...	42 00	42 00
Signalling and controlling safe passage of vessels and steamers through aqueduct at Welland, night and day.....	do	Joseph McMurray.....	31 days...	1 50	46 50
do do .....	do	James Nixon .....	31 do ...	1 50	46 50
do do .....	do	Robert Simpson.....	31 do ...	1 50	46 50
do do .....	do	Wm. Nixon.....	31 do ...	1 50	46 50
MACHINISTS.					
<i>Division Nos. 1 and 2.</i>					
Keeping machinery connected with lock gates in proper order throughout day and night.....	do	Samuel Houston.....	32½ do ...	2 00	65 00
do do .....	do	Wm. Mossip.....	28 do ...	2 00	56 00
do do .....	do	Ed. Newall, h. & wg... 15½ do ...	1 50	23 25	
do do .....	do	John McMillan .....	33 do ...	2 00	66 00
do do .....	do	Thomas Ryan .....	32 do ...	1 75	56 00
do do .....	do	J. H. Booth, h. & wg... 32 do ...	1 50	48 00	
Diver.....	do	Ed. Smiley.....	22½ do ...	2 00	44 50
Assisting ferryman, Port Colborne. ....	do	E. Bradley .....	2 do ...	1 50	3 00



## ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Aug. 1-31...	To G.N.W. Telegraph Co., St. Catharines—Telegrams during month.....		16 07
do 1-31...	C.P.R. Telegraph Co., St. Catharines—Telegrams during month.....		8 65
do 1-31...	Bell Telephone Co., Welland—Conversation during month.....		4 80
do 1-31...	The Journal Printing Co., St. Catharines—Advertising list of vessels passing through lock 7, Welland Canal, 250 lines, at 4c.....		9 20
do 6...	Coy Bros., St. Catharines— 4 brls lubricating oil, 190 galls., at 65c.....	123 50	
do 24...	189½ galls. coal oil, at 26c.....	49 27	172 77
do 30...	Henry Mussen, Allanburgh— 7 galls. coal oil, at 30c., \$2.10; 2 galls. lard oil, at \$1, \$2 3 chimneys.....	4 10 0 25	4 35
do 1-31...	R. A. Abbey, Port Robinson—7 galls. coal oil, at 30c.....		2 10
do 1-31...	W. N. Garden, Welland— 30 galls. coal oil, at 30c., \$9, 12 lbs. oatmeal, 50c..... 2 lbs. nails, 10c.; 2 box matches, 30c.; 2 large burners, 40c. 1 bridge broom, 75c.; ½ gall. lard oil, 50c.....	9 50 0 80 1 25	11 55
do 1-31...	John Mathews, Port Colborne— 24 galls. coal oil, at 30c., \$7.20; 1 broom, 25c.; 1 yard wick, 5c..... 1 box matches. ....	7 50 0 15	7 65
do 1-31...	A. Thompson, Welland—4½ weeks board for C. H. Cartier, in charge of aqueduct, Welland, at \$4.....		17 70
do 1-31...	Grand Trunk Railway Co., St. Catharines—1 month's ex- penses 8 railway bridge tenders, St Catharines and Thorold, at \$45.....		360 00
do 1-31...	W. W. Wait, St. Catharines—Services horse and waggon for delivering supplies to and from store.....		20 00
do 17...	R. D. Dunn, St. Catharines— Horse and buggy, Port Dalhousie paying men .....	1 50	
do 18...	do Robinson do .....	2 50	
do 19...	Expenses assistant and horse, do .....	1 00	
do 23-24...	Railway and hack fare Welland and return..... do Port Colborne, Dunnville and return.....	1 55 3 00	
	3 days' board and lodging away from home paying men and accounts, at \$3.....	9 00	18 55
			653 39

**PAY LIST** in duplicate of persons employed on the Old Welland Feeder Canal during the month of August, 1887, to pay Permanent Establishments, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Overseer.....	Aug., 1887	J. B. Smyth.....	1 month...	100 00	100 00
Master, Lock 1 and bridge.....	do	B. Merrith.....	1 do	42 00	42 00
Assistant.....	do	John Woodall.....	1 do	42 00	42 00
do	do	R. Hargraft.....	1 do	42 00	42 00
do	do	John House.....	1 do	42 00	42 00
Master, Lock 2 and bridge.....	do	W. Weaver.....	1 do	42 00	42 00
Assistant.....	do	J. Johnson.....	1 do	42 00	42 00
do	do	W. W. Charles.....	1 do	42 00	42 00
do	do	John Sullivan.....	1 do	42 00	42 00
Master, St. Paul Street Bridge.....	do	Wm. McClorey.....	1 do	38 00	38 00
Assistant.....	do	T. Sullivan.....	1 do	38 00	38 00
Master, Lock 3.....	do	Alex. Walker.....	1 do	38 00	38 00
Assistant.....	do	Fred. Sherer.....	1 do	38 00	38 00
Master, Lock 4 and bridge.....	do	James Livingston.....	1 do	42 00	42 00
Assistant.....	do	James Boyle.....	1 do	42 00	21 00
do	do	T. R. Brownlee.....	1 do	42 00	21 00
Master, Locks 5, 6, 7, and bridge..	do	Robert Boyle.....	1 do	42 00	42 00
Assistant.....	do	Michael White.....	1 do	42 00	42 00
Master, Locks 8, 9, 10 and 11.....	do	Barney Clarke.....	1 do	38 00	38 00
Assistant.....	do	C. W. Bradley.....	1 do	38 00	38 00
Master, Locks 12, 13, 14 and 15...	do	James Cogan.....	1 do	38 00	38 00
Assistant.....	do	Martin Nester.....	1 do	38 00	38 00
Master, Locks 16, 17 and 18.....	do	Barnet Darby.....	1 do	38 00	38 00
Assistant.....	do	Robert Gibson.....	1 do	38 00	38 00
Master, Locks 19, 20 and 21.....	do	E. McLaughlin.....	1 do	38 00	38 00
Assistant.....	do	Robert Bradley.....	1 do	38 00	38 00
Master, Lock 22 and bridge.....	do	John McNamara.....	1 do	38 00	38 00
Assistant.....	do	A. W. Bradley.....	1 do	38 00	38 00
Master, Locks 23, 24 and bridge...	do	John Neil.....	1 do	42 00	42 00
Assistant.....	do	D. Ryckman.....	1 do	38 00	38 00
Master, Lock 25 and guard lock..	do	John Fluelyn.....	1 do	38 00	38 00
Assistant.....	do	Rufus Swazzie.....	1 do	38 00	38 00
Hurst Bridge.....	do	Jacob Reuter.....	1 do	38 00	38 00
Marlatt's Bridge.....	do	Nelson Higgins.....	1 do	38 00	38 00
Allanburgh Bridge.....	do	A. H. Upper.....	1 do	38 00	38 00
Allanburgh Lock.....	do	William Higgins.....	1 do	38 00	38 00
Assistant.....	do	Lewis Mosier.....	1 do	38 00	38 00
Allanburgh Guard Lock.....	do	Aaron Higgins.....	1 do	38 00	38 00
Assistant.....	do	Oscar Upper.....	1 do	38 00	38 00
Foreman on banks.....	do	John Gearin.....	1 do	38 00	38 00
<i>Feeder Division.</i>					
Overseer.....	do	John E. Scott.....	1 do	800 00	66 67
Junction lock.....	do	Geo. Hannah.....	1 do	38 00	38 00
Feeder Flout Bridge.....	do	John Henderson.....	1 do	10 00	10 00
Stromness Bridge.....	do	Geo. Harris.....	1 do	38 00	38 00
Port Maitland lock.....	do	Michael Corcoran.....	1 do	38 00	38 00
Assistant.....	do	Wm. Brenen.....	1 do	38 00	38 00
Regulating water gate, Dunnville	do	Charles Thrush.....	1 do	38 00	38 00
					1,862 67

## ACCOUNTS chargeable to Old Welland Canal and Feeder, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Aug. 31...	To W. J. McCartney, Thorold - Telegrams from June, 1887, to date.....		2 57
do 27...	W. L. Weatherby, Dunnville—5 galls. lard oil.....		5 00
do 31...	Dunnville Electric Light Co., Dunnville—62 lights, 70 bridge and guard lock, at 16½c.....		10 34
do 25...	Robert White, Dunnville—Printing 100 blank forms, permits for banking ground along feeder.....		1 50
	Total.....		19 41

## PAY-LIST in duplicate of persons employed on the Old Welland and Feeder Canal, during the month of September, 1887, to pay Permanent Establishment and Accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
	1887.			\$ cts.	\$ cts.	\$ cts.
Overseer.....	September	J. B. Smyth.....	1 month..	100 00	100 00	6 00
Master, Lock 11 and Bridge	do	B. Merritt.....	1 do	42 00	42 00	
Assistant.....	do	J. Woodall.....	1 do	42 00	42 00	
do	do	R. Hargraff.....	1 do	42 00	42 00	1 58
do	do	John House.....	1 do	42 00	42 00	over 35 yrs
Master, Lock 21 and Bridge	do	Walter Weaver.....	1 do	42 00	42 00	
Assistant.....	do	T. Johnston.....	1 do	42 00	42 00	1 58
do	do	W. H. Charles.....	1 do	42 00	42 00	1 58
do	do	M. Sullivan.....	1 do	42 00	42 00	1 58
St. Paul Street Bridge.....	do	Wm. McClorey.....	1 do	38 00	38 00	1 43
Assistant.....	do	Tim Sullivan.....	1 do	38 00	38 00	1 43
Master, Lock 3.....	do	Alex. Walker.....	1 do	38 00	38 00	1 43
Assistant.....	do	Fred. Sherer.....	1 do	38 00	38 00	1 43
Master, Lock 4 and Bridge.	do	James Livingston..	1 do	42 00	42 00	1 58
Assistant.....	do	Thos. R. Brownlee	1 do	42 00	42 00	
Master, Locks 5, 6, 7 and Bridge	do	R. Boyle.....	1 do	42 00	42 00	1 58
Assistant.....	do	Mich. White.....	1 do	42 00	42 00	1 58
Master, Locks 8, 9, 10 and 11	do	B. Clarke.....	1 do	38 00	38 00	1 43
Assistant.....	do	C. W. Bradley.....	1 do	38 00	38 00	1 43
Master, Locks 12, 13, 14 and 15	do	James Cogan.....	1 do	38 00	38 00	1 43
Assistant.....	do	Martin Nestor.....	1 do	38 00	38 00	1 43
Master, Locks 16, 17 and 18	do	B. Darby.....	1 do	38 00	38 00	1 43
Assistant.....	do	R. Gibson.....	1 do	38 00	38 00	1 43
Master, Locks 19, 20 and 21	do	E. McLaughlin.....	1 do	38 00	38 00	1 43
Assistant.....	do	Robert Bradley.....	1 do	38 00	38 00	1 43
Master, Lock 22 and Bridge	do	John McNamara.....	1 do	38 00	38 00	1 43
Assistant.....	do	A. W. Bradley.....	1 do	38 00	38 00	1 43
Master, Locks 23, 24 and Bridge	do	John Neil.....	1 do	42 00	42 00	1 58
Assistant.....	do	D. Ryckman.....	1 do	38 00	38 00	1 43
Master, Lock 25 and Guard Lock	do	John Flullyn.....	1 do	38 00	38 00	
Assistant.....	do	R. Swazie.....	1 do	38 00	38 00	1 43
Hurst's Bridge.....	do	Jacob Renter.....	1 do	38 00	38 00	1 43
Marlatt's Bridge.....	do	Nelson Higgins.....	1 do	38 00	38 00	1 43
Allanburgh Bridge.....	do	A. H. Upper.....	1 do	38 00	38 00	1 43



**PAY LIST** in duplicate of Persons employed on the Old Welland and Feeder Canal,  
&c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
	1887.			\$ cts.	\$ cts.	\$ cts.
Allanburgh Lock .....	September	Wm. Higgins.....	1 month..	38 00	38 00	over 35 yrs
do Assistant.....	do	Lewis Mosier.....	1 do	38 00	38 00	1 43
do Guard Lock...	do	Aaron Higgins .....	1 do	38 00	88 00	over 35 yrs
do Assistant.....	do	Oscar Upper.....	1 do	38 00	38 00	
Foreman on banks.....	do	John Gearin.....	1 do	38 00	38 00	1 43
<i>Feeder Canal.</i>						
Overseer.....	do	John E. Scott.....	1 do	800 00	66 66	4 00
Junction Lock.....	do	G. Hannah.....	1 do	38 00	38 00	1 43
Feeder Flout Bridge.....	do	John Henderson....	1 do	10 00	10 00	
Stromness Bridge.....	do	Geo. Harris.....	1 do	38 00	38 00	1 43
Port Maitland Lock.....	do	Mich. Corcoran....	1 do	38 00	38 00	1 43
Assistant.....	do	Wm. Brenen.....	1 do	38 00	38 00	
Regulating water, &c.....	do	Chas. Thrush.....	1 do	38 00	38 00	over 35 yrs
					1,862 66	56 96

**ACCOUNTS** Chargeable to Old Welland Canal and Feeder, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Sept. 30...	To John B. Smyth, Overseer, Merritton— 3 months' use of horse and waggon connected with duties, at \$150.....	37 50	
	3 do rent of house, at \$8.....	24 00	61 50
do 30...	John E. Scott, Dunnville—Service of horse and waggon for 3 months ending September 30, sundry dates, as per original account.....		35 00
do 30...	G. N. W. Telegraph Co., Dunnville—Telegrams from August 11 to date.....		10 07
do 30...	Dunnville Electric Light Co., Dunnville—Lighting swing bridge and Guard Lock, 60 lights.....		10 00
	John Jenkin & Co., St. Catharines—		
May 4...	7 boxes matches.....	0 91	
June 23...	½ doz. lamp wick.....	0 05	
Sep. 23-28...	9 galls. coal oil, at 25c.....	1 50	2 46
			119 03

PAY-LIST in duplicate of persons employed on the Welland Canal during the month of September, 1887, to Pay permanent Establishment and Accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
Superintendent.....	Sept, 1887	Wm. Ellis.....	1 month...	2,900 00	241 66	14 50
Paymaster.....	do ...	A. D. Dunn.....	1 do ...	1,400 00	116 66	7 00
Accountant.....	do ...	J. E. Lawrence....	1 do ...	1,000 00	83 34	.....
Harbor Master, Port Dalhousie.....	do ...	Wm. Cook.....	1 do ...	750 00	62 50	3 75
Harbor Master, Port Colborne.....	do ...	C. H. Carter.....	1 do ...	750 00	62 50	3 75
Overseers, Division No. 1...	do ...	J. G. Demare.....	1 do ...	100 00	100 00	6 00
do do No. 2...	do ...	Jas. Dell.....	1 do ...	75 00	75 00	.....
do do No. 3...	do ...	A. Hamilton....	1 do ...	60 00	60 00	3 60
do do No. 4...	do ...	F. R. Secord.....	1 do ...	65 00	65 00	.....
Storekeeper, &c.....	do ...	W. W. Wait.....	1 do ...	65 00	65 00	.....
Messenger, &c.....	do ...	Thos. J. Hartley..	30 days...	1 25	37 50	.....
In charge of steel and iron bridges, steam pump, &c., &c.....	do ...	W. Chatfield.....	1 month...	75 00	75 00	.....
<i>Division No. 1.</i>						
Port Dalhousie Ferry .....	Sept., 1887	Frank Smith.....	26 days....	1 40	36 40	
Master, Lock 1.....	do ...	J. M. Woodall... ..	1 month...	42 00	42 00	1 38
Assistant.....	do ...	Geo. Howe.....	1 do ...	45 00	45 00	1 69
do .....	do ...	Jno. Paxton.....	1 do ...	45 00	45 00	1 69
do .....	do ...	Thos. Williams....	1 do ...	45 00	45 00	
Master, Bridge 1.....	do ...	Frank Darby.....	1 do ...	45 00	45 00	
Assistant.....	do ...	Phil. Ohnith.....	1 do ...	45 00	45 00	
Master, Lock 2.....	do ...	Alp. Kelley.....	1 do ...	47 00	47 00	
Assistant.....	do ...	Geo. Bowman.....	1 do ...	45 00	45 00	
do .....	do ...	Wm. L. Smith.....	1 do ...	45 00	45 00	1 69
do .....	do ...	Richard Hutton ...	1 do ...	45 00	45 00	
Master, Lock 3.....	do ...	Isaac Johnston....	1 do ...	47 00	47 00	
Assistant.....	do ...	James Keys.....	1 do ...	45 00	45 00	
do .....	do ...	Con. Gorman.....	1 do ...	45 00	45 00	1 69
do .....	do ...	Jas. Grogan.....	1 do ...	45 00	45 00	
Master, Bridge 2.....	do ...	John Flynn.....	1 do ...	45 00	45 00	1 69
Assistant.....	do ...	H. Alexander.....	1 do ...	45 00	45 00	
Master, Lock 4.....	do ...	Jos. Franklin.....	1 do ...	47 00	47 00	
Assistant.....	do ...	Samuel Hopkins... ..	1 do ...	45 00	45 00	
do .....	do ...	Wm. Altoft.....	1 do ...	45 00	45 00	
do .....	do ...	Samuel Duppier... ..	1 do ...	45 00	45 00	1 69
Master, Lock 5.....	do ...	Thos. Scott.....	1 do ...	47 00	47 00	
Assistant.....	do ...	J. Pennington.....	1 do ...	45 00	45 00	
do .....	do ...	Thos. Jones.....	1 do ...	45 00	45 00	
do .....	do ...	John Wilde.....	1 do ...	45 00	45 00	
Master, Bridge 3.....	do ...	G. H. Browaen....	1 do ...	45 00	45 00	
Assistant.....	do ...	M. Morarity.....	1 do ...	45 00	45 00	
Master, Lock 6.....	do ...	Peter Paxton.....	1 do ...	47 00	47 00	
Assistant.....	do ...	John Daley.....	1 do ...	45 00	45 00	
do .....	do ...	Chas. Newbold....	1 do ...	43 00	45 00	
do .....	do ...	Wm. Browman.....	1 do ...	45 00	45 00	
Master, Bridge 5.....	do ...	Wm. Elliott.....	1 do ...	45 00	45 00	
Assistant.....	do ...	Geo. Spooner.....	1 do ...	45 00	45 00	
Master, Lock 7.....	do ...	C. B. Hare.....	1 do ...	47 00	47 00	1 77
Assistant.....	do ...	M. Sullivan.....	1 do ...	45 00	45 00	
do .....	do ...	Wm. Boyle.....	1 do ...	45 00	45 00	
do .....	do ...	R. Freeman.....	1 do ...	45 00	45 00	1 69
Master, Bridge 6.....	do ...	J. W. Grant.....	1 do ...	45 00	45 00	
Assistant.....	do ...	Alex. Stewart.....	1 do ...	45 00	45 00	
Master, Lock 8.....	do ...	Mich. Hayden.....	1 do ...	47 00	47 00	
Assistant.....	do ...	Wm. Reid.....	1 do ...	45 00	45 00	
do .....	do ...	R. Secord.....	1 do ...	45 00	45 00	
do .....	do ...	M. McCormick.....	1 do ...	45 00	45 00	
Master, Lock 9.....	do ...	R. H. Watson.....	1 do ...	47 00	47 00	



PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Superannuation.
				\$ cts.	\$ cts.	\$ cts.
<i>Division No. 1.—Con.</i>						
Assistant.....	Sept., 1887	Geo. Millward.....	1 month...	45 00	45 00	
do .....	do	J. C. Longley.....	1 do	45 00	45 00	
do .....	do	Alex. Bradt.....	1 do	45 00	45 00	
Master, Bridge 7.....	do	Jas. Whitten.....	1 do	45 00	45 00	
Assistant.....	do	Jno. Cushman.....	1 do	45 00	45 00	
Master, Lock 10.....	do	Jas. Bradley.....	1 do	47 00	47 00	1 77
Assistant.....	do	Jas. Mulvey.....	1 do	45 00	45 00	1 69
do .....	do	Henry Hare.....	1 do	45 00	45 00	1 69
do .....	do	Thomas Wilson.....	1 do	45 00	45 00	
Master, Bridge 8.....	do	Arthur Cain.....	1 do	45 00	45 00	
Assistant.....	do	John McGeachie.....	1 do	45 00	45 00	
Master, Lock 11.....	do	James Reynolds.....	1 do	47 00	47 00	
Assistant.....	do	Wm. Wilson.....	1 do	45 00	45 00	1 69
do .....	do	James Webster.....	1 do	45 00	45 00	
do .....	do	W. P. Burleigh.....	1 do	45 00	45 00	
Master, Lock 12.....	do	Wm. Strong.....	1 do	47 00	47 00	1 77
Assistant.....	do	E. Bradley.....	1 do	45 00	45 00	
do .....	do	F. Mugham.....	1 do	45 00	45 00	
do .....	do	Jas. McBride.....	1 do	45 00	45 00	
Master, Lock 13.....	do	Thos. Keating.....	1 do	47 00	47 00	
Assistant.....	do	Alex. Soper.....	1 do	45 00	45 00	
do .....	do	Joseph Turner.....	1 do	45 00	45 00	
do .....	do	John Lewin.....	1 do	45 00	45 00	
<i>Division No. 2.</i>						
Master bridge 9.....	do	Peter Secord.....	1 do	45 00	45 00	
Assistant.....	do	John Black.....	1 do	45 00	45 00	
Master, Lock 14.....	do	Con. Nester.....	1 do	47 00	47 00	
Assistant.....	do	Robt. Boyle.....	1 do	45 00	45 00	
do .....	do	John Strong.....	1 do	45 00	45 00	
do .....	do	Thos. Flynn.....	1 do	45 00	45 00	1 69
Master, Lock 15.....	do	Thos. Aikens.....	1 do	47 00	47 00	
Assistant.....	do	Jas. McAuley.....	1 do	45 00	45 00	1 69
do .....	do	James Boyle.....	1 do	45 00	45 00	
do .....	do	Abe Brenen.....	1 do	45 00	45 00	
Master, Lock 16.....	do	Thos. Burley.....	1 do	47 00	47 00	
Assistant.....	do	Sam Bradley.....	1 do	45 00	45 00	
do .....	do	John Holland.....	1 do	45 00	45 00	
do .....	do	Austin Moran.....	1 do	45 00	45 00	over 35 yrs
Master, Lock 17.....	do	Michael Coody.....	1 do	47 00	47 00	
Assistant.....	do	F. Shannan.....	1 do	45 00	45 00	
do .....	do	Michael Glynn.....	1 do	45 00	45 00	
do .....	do	W. Galbraith.....	1 do	45 00	45 00	
Master, Lock 18.....	do	J. S. Pearson.....	1 do	47 00	47 00	
Assistant.....	do	Geo. Newton.....	1 do	45 00	45 00	
do .....	do	Thos. Hannah.....	1 do	45 00	45 00	
do .....	do	Joseph Cook.....	1 do	45 00	45 00	
Master, Lock 19.....	do	R. Grisdale.....	1 do	47 00	47 00	
Assistant.....	do	F. Johnson.....	1 do	45 00	45 00	
do .....	do	F. Hoschke.....	1 do	45 00	45 00	
do .....	do	R. Grenville.....	1 do	45 00	45 00	
Master, Lock 20.....	do	Jacob Reuter.....	1 do	47 00	47 00	
Assistant.....	do	Isaac Mann.....	1 do	45 00	45 00	
do .....	do	John Collins.....	1 do	45 00	45 00	1 69
do .....	do	Thos. Freel.....	1 do	45 00	45 00	1 69
Master, Lock 21.....	do	F. C. Berrimen.....	1 do	47 00	47 00	
Assistant.....	do	John Cole.....	1 do	45 00	45 00	
do .....	do	Adelbert Clarke.....	1 do	45 00	45 00	
do .....	do	James Ellis.....	1 do	45 00	45 00	
Master, Lock 22.....	do	Wm. Hannah.....	1 do	47 00	47 00	
Assistant.....	do	Wm. Camp.....	1 do	45 00	45 00	
do .....	do	Wm. Boyle.....	1 do	45 00	45 00	
do .....	do	Henry Phillips.....	1 do	45 00	45 00	



## PAY-LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
<i>Division No. 2.—Con.</i>						
Master, Lock 23.....	Sept., 1886	Thos. Bonewell.....	1 month...	47 00	47 00	
Assistant.....	do	Jas. Smerdon.....	1 do ...	45 00	45 00	
do .....	do	T. Commarford.....	1 do ...	45 00	45 00	1 09
do .....	do	John Corbett.....	1 do ...	45 00	45 00	1 09
Master, Lock 24.....	do	R. Campbell.....	1 do ...	47 00	47 00	
Assistant.....	do	M. Henderson.....	1 do ...	45 00	45 00	
do .....	do	Thos. Bradley.....	1 do ...	45 00	45 00	
do .....	do	Henry Kern.....	1 do ...	45 00	45 00	
Master, Bridge 10.....	do	Wm. Fleming.....	1 do ...	45 00	45 00	
Assistant.....	do	F. Galbraith.....	1 do ...	45 00	45 00	
Master, Lock 25.....	do	M. McCarthy.....	1 do ...	47 00	47 00	1 77
Assistant.....	do	George Detler.....	1 do ...	45 00	45 00	
do .....	do	Sam. Campell.....	1 do ...	45 00	45 00	
do .....	do	Robt. Wright.....	1 do ...	45 00	45 00	
Master, Bridge 12.....	do	Geo. A. Thomas.....	1 do ...	45 00	45 00	
Assistant.....	do	Robert Camp.....	1 do ...	45 00	45 00	
Master, Guard Lock.....	do	James Hinton.....	1 do ...	47 00	47 00	
Assistant.....	do	Fred. Day.....	1 do ...	45 00	45 00	1 69
do .....	do	Saml. Frazer.....	1 do ...	45 00	45 00	
do .....	do	James Cook.....	1 do ...	45 00	45 00	
Master, Bridge 13.....	do	Rich. Higgins.....	1 do ...	45 00	45 00	1 69
Assistant.....	do	Wm. Upper.....	1 do ...	45 00	45 00	
<i>Division 3.</i>						
Master, Bridge 14.....	do	Dan'l O'Leary.....	1 do ...	45 00	45 00	1 69
Assistant.....	do	Geo. A. Upper.....	1 do ...	40 00	40 00	
Master, Bridge 15.....	do	Bart. O'Leary.....	1 do ...	45 00	45 00	1 69
Assistant.....	do	Geo. Thompson.....	1 do ...	45 00	45 00	1 69
Pt. Robinson Ferry.....	do	R. Stevenson.....	1 do ...	36 00	36 00	
do Lock.....	do	James McCoppin... 1	do ...	47 00	47 00	1 77
Assistant.....	do	James Walsh.....	1 do ...	45 00	45 00	1 69
Master, Bridge 16.....	do	James Edmonds.....	1 do ...	45 00	45 00	1 69
Assistant.....	do	Geo. P. Misner.....	1 do ...	45 00	45 00	
<i>Division 4.</i>						
Welland Lock .....	do	Wm. Wilson.....	1 do ...	45 00	45 00	
Master, Bridge 17.....	do	Jas. Foster.....	1 do ...	45 00	45 00	1 09
Assistant.....	do	L. J. Brennan.....	1 do ...	45 00	45 00	
Master, Bridge 19.....	do	Chas. Hannah.....	1 do ...	45 00	45 00	1 09
Assistant.....	do	Alex. Hannah.....	1 do ...	45 00	45 00	1 69
do .....	do	Michael Traynor... 1	do ...	36 00	36 00	
Master, bridge 21 .....	do	Emile Bonaberg... 1	do ...	45 00	45 00	1 69
Assistant.....	do	Isaac Shisler.....	1 do ...	45 00	45 00	
Port Colborne Lock and Bridge.....	do	John Henshaw.....	1 do ...	42 00	42 00	1 58
do do .....	do	John Cook.....	1 do ...	42 00	42 00	1 58
do do .....	do	John Stevens.....	1 do ...	42 00	42 00	1 58
do do .....	do	Wm. Aikens.....	1 do ...	42 00	42 00	1 58
do do .....	do	Jas. Dunlap.....	1 do ...	42 00	42 00	
Port Colborne Ferry.....	do	John Bradley.....	1 do ...	42 00	42 00	1 58
Signalling and controlling safe passage vessels, &c., through Aqueducts, Welland, night and day .....	do	John McMurray.....	30 days....	1 50	45 00	
do do .....	do	James Nixon.....	30 do ...	1 50	45 00	
do do .....	do	Robert Simpson .. 30	do ...	1 50	45 00	
do do .....	do	Wm. Nixon.....	30 do ...	1 50	45 00	

**PAY-LIST** in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
MACHINISTS.				\$ cts.	\$ cts.	\$ cts.
Keeping machinery connected with lock gates and waste weirs in proper order throughout night and day, Divisions 1 and 2	...	...	...	2 00	48 00	
do do	do	Samuel Houston....	24 do	2 00	52 00	
do do	do	William Mossip....	26 do	1 50	15 00	
do do	do	Ed. Newal, h. & w.	10 do	2 00	57 00	
do do	do	John McMillan....	28½ do	1 75	49 87	
do do	do	Thos. Ryan....	28½ do	1 50	39 75	
do do	do	Jno. Booth, h. & w.	26½ do	2 00	43 00	
do do	do	E. Smiley.....	21½ do			
					8,278 18	102 56

**ACCOUNTS** Chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Sept. 1-30...	To G. N. W. Telegraph Company, St. Catharines—Telegrams as per account.....		15 41
do 30...	John Cloy, Thorold—Telephone service and messengers....		2 70
do 1-30...	Bell Telephone Company, Welland—Conversations during the month.....		2 80
Aug. 1-3...	E. Bryson, St. Catharines—Postage stamps and bands....		3 25
Sept. 30....	H. G. Carter, Port Colborne—Postage for 3 months ending Sept. 30th.....		5 20
do 1-20...	The Journal Printing Company, St. Catharines—Advertising list of vessels passing through Lock 7.....		7 60
April 14...	The News Publishing Company, St. Catharines—		
June 30...	Advertising drawing off water.....	11 50	
	Subscription to <i>Daily News</i> , 6 months.....	2 00	13 50
do 29...	John Junkin & Co., St. Catharines—		
July 15...	2 dozen large flint chimneys.....	3 00	
	1 case matches, \$4.75; 4 dozen flint chimneys, \$6.....	10 75	
	1 gross lampwick, \$1; 4 dozen large lamp burners, \$10..	11 00	
	4 dozen brooms.....	11 00	
Aug. 20...	½ dozen brooms, \$1 50; 3 dozen lamp chimneys, \$3.60...	5 10	
	1 dozen lamp chimneys, \$1.50; 1 gross lampwick, 70c...	2 20	43 05
Sept. 1-30...	Henry Mussen, Allanburgh—7 gals. coal oil at 30c., \$2.10;		
do 1-30...	1 gal. lard oil, \$1.....		3 10
do 1-30...	W. W. Garden, Welland—27 gals. coal oil at 30c., \$8.10;		
	1 gal. lard oil, \$1.....		9 10
do 1-30...	John Mathews, Port Colborne—		
	15 gals. coal oil at 30c., \$4.50; 1 gal. lard oil, \$1.....	5 50	
	½ ton coal.....	3 00	8 50
do 30...	J. G. Demare, Overseer, Port Dalhousie—Services of horse and waggon, in connection with duties of overseer, 3 months ending Sept. 30th, 1887.....		37 50
do 30...	James Dell, Overseer, Thorold—		
	To services of horse and waggon in connection with duties of overseer, 3 months ending Sept. 30th, 1887...	37 50	
	3 months' rent of house, \$8.....	24 00	61 50

ACCOUNTS chargeable to Welland Canal, &c.—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ . cts.
Sept. 30...	To A. Hamilton, Overseer, Port Robinson— 3 months' rent of house, at \$8..... Postage, 60 cts.; railway fare, 25 cts.....	25 00 0 85	24 85
do 30...	Thos. R. Secord, Overseer, Port Colborne—Railway fares for 3 months, ending September 30, 1887, as per original account .....		29 25
do 30...	A. Thompson, Welland—4½ weeks' board and lodging for C. H. Carter in charge of aqueduct at Welland, at \$4.....		17 14
do 1-30...	W. W. Wait, St. Catharines—Services of horse and wagon delivering supplies to and from store house.....		20 00
do 30...	Grand Trunk Railway Co., St. Catharines—1 month's expense of 8 railway bridge tenders, St. Catharines and Thorold, at \$45..... R. D. Dunn, Paymaster, St. Catharines, for the following expenses incurred in paying off Welland Canal pay-lists for August, 1887—		360 00
do 16...	Horse and buggy 1 day, Port Dalhousie and Thorold....	2 50	
do 17...	do do Port Robinson.....	2 50	
do 19...	Expenses assistant and 1 horse.....	1 25	
do 20-21...	Railway and hack fares, Welland and return..... do do Port Colborne, Dunnville and return.....	1 55 3 00	
do 16-22...	3 days' board and lodging for self away from home, paying men, at \$3.....	9 00	19 80
do 30...	Mrs. Hartley, St. Catharines—Services for 3 months, ending September 30, 1887, as charwoman, Canal Offices, at \$100 per annum.....	25 00	
do 30...	Wm. Hutchinson, Port Dalhousie—13 tons coal, at \$6.25.....		81 25
do 30...	Henry O'Loughlin, St. Catharines—5 tons coal, at \$6 25.....		31 25
do 30...	D. Dittrick, St. Catharines—8 tons coal.....		50 00
do 1-30...	Richard Leeson, Merriton— 6 cords wood, at \$4.50..... 8 tons coal, at \$6.25.....	27 00 50 00	77 00
do 30...	E. Bryson, St. Catharines—Postage stamps and envelopes per original account.....		20 70
do 30...	Wm. Ellis, Superintendent, St. Catharines— Quarterly allowance.....	75 00	
do 13-15...	Cab fares, St. Catharines and Ottawa, and paid fares and expenses to and from Ottawa, Pullman fees and refreshments, conferring with heads of department, &c. Paid sundry telegrams sent and received during the quarter.....	41 55 4 96	121 51
			1,090 76



NUMBER of Pay-list, 183. Pay list in duplicate of Persons employed on the Old Welland and Feeder Canal during the month of October, 1887, to pay Permanent Establishments, &c., chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Overseer .....	Oct., 1887	J. B. Smyth.....	1 month...	100 00	100 00
Master, Lock 1 and Bridge.....	do	B. Merrith.....	1 do	42 00	42 00
Assistant.....	do	J. Woodall.....	1 do	42 00	42 00
do .....	do	R. Hargraft.....	1 do	42 00	42 00
do .....	do	Jno. House.....	1 do	42 00	42 00
Master, Lock 2 and Bridge.....	do	W. Weaver.....	1 do	42 00	42 00
Assistant.....	do	T. Johnson.....	1 do	42 00	42 00
do .....	do	W. H. Charles.....	1 do	42 00	42 00
do .....	do	J. Sullivan.....	1 do	42 00	42 00
Master, St. Paul Street Bridge.....	do	Wm. McClory.....	1 do	38 00	38 00
Assistant.....	do	Tim. Sullivan.....	1 do	38 00	38 00
Master, Lock 3.....	do	Alex. Walker.....	1 do	38 00	38 00
Assistant.....	do	Fred. A. Shier.....	1 do	38 00	38 00
Master, Lock 4 and Bridge.....	do	Jas. Livingston.....	1 do	42 00	42 00
Assistant.....	do	T. R. Brownlee.....	1 do	42 00	42 00
Master, Locks 5, 6, 7 and Bridge..	do	Robert Boyle.....	1 do	42 00	42 00
Assistant.....	do	Michael White.....	1 do	42 00	42 00
Master, Locks 8, 9, 10 and 11.....	do	Barney Clarke.....	1 do	38 00	38 00
Assistant.....	do	C. W. Bradley.....	1 do	38 00	38 00
Master, Locks 12, 13, 14 and 15...	do	James Cogan.....	1 do	38 00	38 00
Assistant.....	do	Martin Nestor.....	1 do	38 00	38 00
Master, Locks 16, 17 and 18.....	do	B. Darby.....	1 do	38 00	38 00
Assistant.....	do	Robert Gibson.....	1 do	38 00	38 00
Master, Locks 19, 20 and 21.....	do	E. McLaughlin.....	1 do	38 00	38 00
Assistant.....	do	Robert Bradley.....	1 do	38 00	38 00
Master, Lock 22 and Bridge.....	do	John McNamara.....	1 do	38 00	38 00
Assistant.....	do	A. W. Bradley.....	1 do	38 00	38 00
Master, Locks 23, 24 and Bridge...	do	John Neil.....	1 do	42 00	42 00
Assistant.....	do	D. Ryckmaa.....	1 do	38 00	38 00
Master, Lock 25 and Guard Lock..	do	Jno. Fleullyn.....	1 do	38 00	38 00
Assistant.....	do	R. Swazzie.....	1 do	38 00	38 00
Hurst's Bridge.....	do	Jacob Rentier.....	1 do	38 00	38 00
Marlatt's do .....	do	Nelson Higgins.....	1 do	38 00	38 00
Allanburgh do .....	do	A. H. Upper.....	1 do	38 00	38 00
do Lock.....	do	Wm. Higgins.....	1 do	38 00	38 00
Assistant.....	do	Lewis Mosier.....	1 do	38 00	38 00
Allanburgh Guard Lock.....	do	Aaron Higgins.....	1 do	38 00	38 00
Assistant.....	do	Oscar Upper.....	1 do	38 00	38 00
Foreman on banks.....	do	Jno. Gearin.....	1 do	38 00	38 00
<i>Feeder Canal.</i>					
Overseer .....	do	Jno. E. Scott.....	1 do	800 00	66 67
Junction Lock.....	do	Geo. Hannah.....	1 do	38 00	38 00
Feeder, F. Bridge .....	do	Jno. Henderson.....	1 do	10 00	10 00
Stromness Bridge.....	do	Geo. Harris.....	1 do	38 00	38 00
Port Maitland Lock.....	do	Michael Corcoran.....	1 do	38 00	38 00
Assistant.....	do	Wm. Brenen.....	1 do	38 00	38 00
Regulating water, &c.....	do	Chas. Thrush.....	1 do	38 00	38 00
					1,862 67

# Accounts chargeable to Old Welland and Feeder Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Oct. 31.....	To Dunnville Electric Light Co., Dunnville—Lighting swing bridge and guard lock, 2 lights, 54 nights, at 16½c.....		9 00
do 31.....	G. N. W. Telegraph Co., Dunnville—Telegrams from September 24 to date.....		10 53
do 4.....	John Sutter, St. Catharines—2 tons coal.....		13 00
do 31.....	Richard Leeson, Merriton—6 cords wood, at \$4.50.....		27 00
			59 53

NUMBER of Pay-list, 187. Pay-list in duplicate of Persons employed on the Welland Canal, during the month of October, 1887, to pay Permanent Establishments and Accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Superintendent.....	Oct., 1887.	Wm. Ellis.....	1 month...	2,700 00	241 87
Paymaster.....	do ..	R. D. Dunn.....	1 do ..	1,400 00	116 67
Accountant.....	do ..	J. E. Lawrence.....	1 do ..	1,000 00	83 23
Harbor Master, Port Dalhousie....	do ..	Wm. Cooke.....	1 do ..	750 00	62 50
do Port Colborne.....	do ..	C. H. Carter.....	1 do ..	750 00	62 50
Overseer, Division No. 1.....	do ..	J. G. Demare.....	1 do ..	100 00	100 00
do do 2.....	do ..	Jas. Dell.....	1 do ..	75 00	75 00
do do 3.....	do ..	A. Hamilton.....	1 do ..	60 00	60 00
do do 4.....	do ..	T. R. Secord.....	1 do ..	65 00	65 00
Storekeeper, &c.....	do ..	W. W. Waits.....	1 do ..	65 00	65 00
Messenger.....	do ..	T. J. Hartley.....	31 days....	1 25	38 75
In charge of steel and iron bridges, also steam pump.....	do ..	W. Chatfield.....	1 month...	75 00	75 00
<i>Division No. 1.</i>					
Port Dalhousie ferry.....	do ..	Frank Smith.....	26 days...	1 40	36 40
Master, Lock 1.....	do ..	J. M. Woodall.....	1 month...	42 00	42 00
Assistant.....	do ..	Geo. Howe.....	1 do ..	45 00	45 00
do ..	do ..	John Paxton.....	1 do ..	45 00	45 00
do ..	do ..	Thos. Williams.....	1 do ..	45 00	45 00
Master, Bridge 1.....	do ..	Frank Darby.....	1 do ..	45 00	45 00
Assistant.....	do ..	Phil. Ohnith.....	1 do ..	45 00	45 00
Master, Lock 2.....	do ..	Alph. Kelley.....	1 do ..	47 00	47 00
Assistant.....	do ..	Geo. Bowman.....	1 do ..	45 00	45 00
do ..	do ..	Wm. L. Smith.....	1 do ..	45 00	45 00
do ..	do ..	Richard Hutton.....	1 do ..	45 00	45 00
Master, Lock 3.....	do ..	Isaac Johnston.....	1 do ..	47 00	47 00
Assistant.....	do ..	James Keys.....	1 do ..	45 00	45 00
do ..	do ..	Con. Gorman.....	1 do ..	45 00	45 00
do ..	do ..	James Orogan.....	1 do ..	45 00	45 00
Master, Bridge 2.....	do ..	John Flynn.....	1 do ..	45 00	45 00
Assistant.....	do ..	H. Alexander.....	1 do ..	45 00	45 00
Master, Lock 4.....	do ..	Jos. Franklin.....	1 do ..	47 00	47 00
Assistant.....	do ..	Sam. Hopkins.....	1 do ..	45 00	45 00
do ..	do ..	Wm. Altoff.....	1 do ..	45 00	45 00
do ..	do ..	Sam. Duffin.....	1 do ..	45 00	45 00
Master, Lock 5.....	do ..	Thos. Scott.....	1 do ..	47 00	47 00
Assistant.....	do ..	Jno. Pennington.....	1 do ..	45 00	45 00
do ..	do ..	Thomas Jones.....	1 do ..	45 00	45 00
do ..	do ..	John Wylde.....	1 do ..	45 00	45 00



## PAY-LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 1.</i>				\$ cts.	\$ cts.
Master, Bridge 3.....	Oct., 1887.	G. H. Brownlee.....	1 month...	45 00	45 00
Assistant.....	do	M. Morarity.....	1 do	45 00	45 00
Master, Lock 6.....	do	Peter Paxton.....	1 do	47 00	47 00
Assistant.....	do	John Daley.....	1 do	45 00	45 00
do	do	Chas. Newbold.....	1 do	45 00	45 00
do	do	W. Bowman.....	1 do	45 00	45 00
Master, Bridge 5.....	do	Wm. Elliott.....	1 do	45 00	45 00
Assistant.....	do	Geo. Spooner.....	1 do	45 00	45 00
Master, Lock 7.....	do	C. B. Hare.....	1 do	47 00	47 00
Assistant.....	do	M. Sullivan.....	1 do	45 00	45 00
do	do	William Boyle.....	1 do	45 00	45 00
do	do	R. Freeman.....	1 do	45 00	45 00
Master, Bridge 6.....	do	Jas. W. Grant.....	1 do	45 00	45 00
Assistant.....	do	Alex. Stewart.....	1 do	45 00	45 00
Master, Lock 8.....	do	N. Hayden.....	1 do	47 00	47 00
Assistant.....	do	Wm. Reid.....	1 do	45 00	45 00
do	do	R. Secord.....	1 do	45 00	45 00
do	do	M. McCormick.....	1 do	45 00	45 00
Master, Lock 9.....	do	R. H. Watson.....	1 do	47 00	47 00
Assistant.....	do	Geo. Millward.....	1 do	45 00	45 00
do	do	Jos C. Longley.....	1 do	45 00	45 00
do	do	Alex. Bradt.....	1 do	45 00	45 00
Master, Bridge 7.....	do	James. Whitten.....	1 do	45 00	45 00
Assistant.....	do	John Cushman.....	1 do	45 00	45 00
Master, Lock 10.....	do	Jas. Bradley.....	1 do	47 00	47 00
Assistant.....	do	Jas. Mulvey.....	1 do	45 00	45 00
do	do	Henry Hare.....	1 do	45 00	45 00
do	do	Thomas Nelson.....	1 do	45 00	45 00
Master, Bridge 8.....	do	Arthur Cain.....	1 do	45 00	45 00
Assistant.....	do	John McGeachie.....	1 do	45 00	45 00
Master, Lock 11.....	do	Jas. Reynolds.....	1 do	47 00	47 00
Assistant.....	do	Alex. Wilson.....	1 do	45 00	45 00
do	do	W. P. Burleigh.....	1 do	45 00	45 00
do	do	Jas. Webster.....	1 do	45 00	45 00
Master, Lock 12.....	do	Wm. Strong.....	1 do	47 00	47 00
Assistant.....	do	E. Bradley.....	1 do	45 00	45 00
do	do	F. Mughan.....	1 do	45 00	45 00
do	do	Jas. McBride.....	1 do	45 00	45 00
Master, Lock 13.....	do	Thos. Keating.....	1 do	47 00	47 00
Assistant.....	do	Alex. Soper.....	1 do	45 00	45 00
do	do	Jos. Turner.....	1 do	45 00	45 00
do	do	John Lewin.....	1 do	45 00	45 00
<i>Division No. 2.</i>					
Master, Bridge 9.....	do	Peter Secord.....	1 do	45 00	45 00
Assistant.....	do	John Black.....	1 do	45 00	45 00
Master, Lock 14.....	do	Con. Nestor.....	1 do	47 00	47 00
Assistant.....	do	Robert Boyle.....	1 do	45 00	45 00
do	do	Thomas Flynn.....	1 do	45 00	45 00
do	do	John Strong.....	1 do	45 00	45 00
Master, Lock 15.....	do	Thomas Aikins.....	1 do	47 00	47 00
Assistant.....	do	James McAuley.....	1 do	45 00	45 00
do	do	James Boyle.....	1 do	45 00	45 00
do	do	Archibald Bradley.....	1 do	45 00	22 50
Master, Lock 16.....	do	Thomas Burley.....	1 do	47 00	47 00
Assistant.....	do	Samuel Bradley.....	1 do	45 00	45 00
do	do	John Holland.....	1 do	45 00	45 00
do	do	Austin Moran.....	1 do	45 00	45 00
Master, Lock 17.....	do	Michael Coady.....	1 do	47 00	47 00
Assistant.....	do	J. Shurman.....	1 do	45 00	45 00
do	do	Michael Glynn.....	1 do	45 00	45 00
do	do	W. Galbraith.....	1 do	45 00	45 00



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 2—Con.</i>				\$ cts.	\$ cts.
Master, Lock 18.....	Oct., 1887.	J. S. Pearson.....	1 month...	47 00	47 00
Assistant.....	do	Geo. Newton.....	1 do	45 00	45 00
do.....	do	Thomas Hannah.....	1 do	45 00	45 00
do.....	do	Joseph Cook.....	1 do	45 00	45 00
Master, Lock 19.....	do	R. Grisdale.....	1 do	47 00	47 00
Assistant.....	do	F. Johnson.....	½ do	45 00	22 50
do.....	do	Abe Brenan.....	1 do	45 00	45 00
do.....	do	F. Hoshcke.....	1 do	45 00	45 00
do.....	do	M. Grenville.....	1 do	45 00	45 00
Master, Lock 20.....	do	Jacob Reuter.....	1 do	47 00	47 00
Assistant.....	do	Isaac McMann.....	½ do	45 00	22 50
do.....	do	J. F. Huffmann.....	½ do	45 00	22 50
do.....	do	Thos. Freal.....	1 do	45 00	45 00
do.....	do	John Collins.....	1 do	45 00	45 00
Master, Lock 21.....	do	F. C. Berriman.....	1 do	47 00	47 00
Assistant.....	do	John Cole.....	1 do	45 00	45 00
do.....	do	Adelbert Clark.....	1 do	45 00	45 00
do.....	do	James Ellis.....	1 do	45 00	45 00
Master, Lock 22.....	do	Wm. Hannah.....	1 do	47 00	47 00
Assistant.....	do	Hy. Phillips.....	1 do	45 00	45 00
do.....	do	Wm. Boyle.....	1 do	45 00	45 00
do.....	do	Wm. Camp.....	1 do	45 00	45 00
Master, Lock 23.....	do	J. Bonewell.....	1 do	47 00	47 00
Assistant.....	do	Jas. Smerdon.....	1 do	45 00	45 00
do.....	do	J. Commarford.....	1 do	45 00	45 00
do.....	do	John Corbett.....	1 do	45 00	45 00
Master, Lock 24.....	do	R. Campbell.....	1 do	47 00	47 00
Assistant.....	do	A. Henderson.....	1 do	45 00	45 00
do.....	do	Thos. Bradley.....	1 do	45 00	45 00
do.....	do	Henry Kern.....	1 do	45 00	45 00
Master, Bridge 10.....	do	Wm. Flemming.....	1 do	45 00	45 00
Assistant.....	do	F. Galbraith.....	18 days	45 00	27 00
do.....	do	F. Donahue.....	12 do	45 00	18 00
Master, Lock 25.....	do	M. McCarthy.....	1 month...	47 00	47 00
Assistant.....	do	Geo. Detton.....	1 do	45 00	45 00
do.....	do	Sam. Campbell.....	1 do	45 00	45 00
do.....	do	Robt. Wright.....	1 do	45 00	45 00
Master, Bridge 12.....	do	Geo. A. Thomas.....	1 do	45 00	45 00
Assistant.....	do	Robert Camp.....	1 do	45 00	45 00
Master, Guard Lock.....	do	James Winton.....	1 do	47 00	47 00
Assistant.....	do	Samuel Frazer.....	1 do	45 00	45 00
do.....	do	Fred. Lay.....	1 do	45 00	45 00
do.....	do	James Cook.....	1 do	45 00	45 00
Master, Bridge 13.....	do	Richard Higgins.....	1 do	45 00	45 00
Assistant.....	do	William Upper.....	1 do	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14.....	do	Daniel O'Leary.....	1 do	45 00	45 00
Assistant.....	do	Geo. A. Upper.....	1 do	40 00	40 00
Master, Bridge 15.....	do	Bart. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	Geo. Thompson.....	1 do	45 00	45 00
Port Robinson Ferry.....	do	R. Stevenson.....	1 do	36 00	36 00
do Lock.....	do	Jas. McCoppin.....	1 do	47 00	47 00
Assistant.....	do	Jas. Walsh.....	1 do	45 00	45 00
Master, Bridge 16.....	do	Jas. Edmonds.....	1 do	45 00	45 00
Assistant.....	do	G. P. Misner.....	1 do	45 00	45 00
<i>Division No. 4.</i>					
Welland Lock.....	do	William Wilson.....	1 do	45 00	45 00
Master, Bridge 17.....	do	James Foster.....	1 do	45 00	45 00
Assistant.....	do	Luke J. Brennan.....	1 do	45 00	45 00
Master, Bridge 19.....	do	Chas. Hannah.....	1 do	45 00	45 00

PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 4—Con.</i>	1887.			\$ cts.	\$ cts.
Assistant.....	October ...	Alex. Hannah.....	1 month...	45 00	45 00
Humberstone Ferry.....	do ...	Mich. Traynor.....	1 do ...	36 00	36 00
Master, Bridge 21.....	do ...	Emil Bonaberg.....	1 do ...	45 00	45 00
Assistant.....	do ...	Isaac Shisler.....	1 do ...	45 00	45 00
Port Colborne Lock and Bridge...	do ...	John Henshaw.....	1 do ...	42 00	42 00
do do ...	do ...	John Cooke.....	1 do ...	42 00	42 00
do do ...	do ...	John Stevens.....	1 do ...	42 00	42 00
do do ...	do ...	Wm. Aikens.....	1 do ...	42 00	42 00
do do ...	do ...	Jas. Dunlap.....	1 do ...	42 00	42 00
do Ferry.....	do ...	John Bradley.....	1 do ...	42 00	42 00
Watchmen signalling and controlling safe passage of vessels through aqueducts at Welland, night and day.....	do ...	Jos. McMurray.....	31 days...	1 50	46 50
do do ...	do ...	James Nixon.....	31 do ...	1 50	46 50
do do ...	do ...	Robert Simpson.....	31 do ...	1 50	46 50
do do ...	do ...	William Nixon.....	31 do ...	1 50	.....
Machinists keeping machinery connected with the lockgates to waste weirs in proper order throughout night and day.—					
Divisions No. 1 and 2.....	do ...	Samuel Houston. ....	27 do ...	2 00	54 00
do do ...	do ...	Chas. Nelson.....	13 do ...	2 00	26 00
do do ...	do ...	Ed. Newall, h. and w.	18 do ...	1 50	27 00
do do ...	do ...	Jno. McMillan.....	13 do ...	2 00	26 00
do do ...	do ...	Isaac McMann.....	13 do ...	2 00	26 00
do do ...	do ...	Thomas Ryan.....	25 do ...	1 75	43 75
do do ...	do ...	J. A. Booth, h. and w.	24½ do ...	1 50	36 75
Diver.....	do ...	Ed. Smiley.....	27½ do ...	2 00	54 50
					8,274 82

## ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Oct. 1-31...	To G. N. W. Telegraph Co., St. Catharines—Telegrams for month.....		5 53
do 1-31...	C. P. R. Telegraph Co., St. Catharines—Telegrams per month.....		1 45
do 1-31...	W. N. Garden, Welland— 30 gals. coal oil, at 30c., \$9; 1 box matches.....	9 15	
	$\frac{1}{2}$ doz. chimneys, 40c.; 1 lamp burner.....	0 55	
			9 70
do 1-31...	John Mathews, Port Colborne— 20 gals. coal oil, at 30c., \$6; 3 lamp chimneys, 30c.....	6 30	
	$\frac{1}{2}$ cord wood, \$2; $\frac{1}{2}$ gal. lard oil.....	2 50	
	1 lamp burner.....	0 18	
			8 98
do 19...	Corporation account, City of St. Catharines—Portion watering street—canal office, for year 1887.....		10 00
do 31...	H. O'Loughlin, St. Catharines—1 ton coal.....		6 50
do 17...	John Salter, St. Catharines—23,340 lbs. coal, at \$6.50.....		75 85
do 31...	Wm. Pike, Thorold— 2,670 lbs. coal, \$6.75.....	9 01	
	15,490 do \$6.25.....	48 41	
			57 42
do 31...	Albert Hannah, Welland—2 $\frac{1}{2}$ cords wood.....		10 00
do 31...	Arch. Thompson, Welland—4 $\frac{1}{2}$ weeks' board and lodging for C. H. Carter, in charge of aqueducts at Welland, \$4.....		17 71
Oct. 1-31...	To Grand Trunk Railway Co., St. Catharines—1 month's pay each for 8 railway bridge tenders, St. Catharines and Thorold.....		360 00
do 1-31...	W. W. Wait, St. Catharines—services of horse and waggon delivering supplies to and from store house.....		20 00
	R. D. Dunn, St. Catharines, for the following disbursements in connection with the payments of the Welland Canal pay lists and accounts:		
do 18...	Horse and buggy, Port Dalhousie and Thorold, 1 day....	2 50	
do 19...	do do Robinson, 1 day.....	2 50	
	Expenses, assistant, 1 horse.....	1 25	
do 20...	Railway and hack fare, Welland and return.....	1 50	
do 21 }	do fare, Port Colborne, Dunnville and return.....	3 00	
do 22 }			
do 18 }			
do 23 }	3 days' board and lodging, self away from home, at \$3..	9 00	
			19 75
do 11...	J. E. Lawrence, St. Catharines—railway fare and dinner, Welland and return, <i>re</i> Page & Co.'s lease.....		1 10
do 31...	John Hill, Port Robinson, 3 cords hard wood, at \$4.50.....		13 50
do 1-31...	Henry Mussen, Allanburgh, 4 gals. coal oil, at 30c.....		1 20
do 1-31...	The Journal Printing Co., St. Catharines, Advertising list of vessels passing through Lock 7, Welland Canal, 141 lines, at 4c.....		5 64
do 1-31...	Coy Bros., St. Catharines— 200 gals. coal oil, at 26c.....	52 00	
	198 do machine oil, at 65c.....	128 70	
			180 70
			805 03



PAY-LIST in duplicate of persons employed on the Old Welland and Feeder Canal, during the month of November, 1887, to pay Permanent Establishment and Accounts, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Overseer .....	Nov., 1887	J. B. Smith .....	1 month...	100 00	100 00
Master, Lock 1 .....	do	B. Merritt .....	1 do	42 00	42 00
Assistant .....	do	John Woodall .....	1 do	42 00	42 00
do .....	do	R. Hargraff .....	1 do	42 00	42 00
do .....	do	John House .....	1 do	42 00	42 00
Master, Lock 2 .....	do	W. H. Charles .....	1 do	42 00	42 00
Assistant .....	do	John Sullivan .....	1 do	42 00	42 00
do .....	do	T. Johnson .....	1 do	42 00	42 00
St. Paul Street Bridge .....	do	Wm. McLozey .....	1 do	38 00	38 00
Assistant .....	do	Tim. Sullivan .....	1 do	38 00	38 00
Master, Lock 3 .....	do	Alex. Walker .....	1 do	38 00	38 00
Assistant .....	do	Fred. Shirer .....	1 do	38 00	38 00
Master, Locks and Bridge .....	do	Jas. Livingstone .....	1 do	42 00	42 00
Assistant .....	do	T. R. Brownlee .....	1 do	42 00	42 00
Master, Locks 5, 6, 7 and Bridge ..	do	Robert Boyle .....	1 do	42 00	42 00
Assistant .....	do	Michael White .....	1 do	42 00	42 00
Master, Locks 8, 9, 10 and 11 .....	do	Barney Clarke .....	1 do	38 00	38 00
Assistant .....	do	C. W. Branley .....	1 do	38 00	38 00
Master, Locks 12, 13, 14 and 15 ..	do	James Cogan .....	1 do	38 00	38 00
Assistant .....	do	Martin Nestor .....	1 do	38 00	38 00
Master, Locks 16, 17 and 18 .....	do	Barnet Barby .....	1 do	38 00	38 00
Assistant .....	do	Robt. Gibson .....	1 do	38 00	38 00
Master, Locks 19, 20 and 21 .....	do	E. McLaughlin .....	1 do	38 00	38 00
Assistant .....	do	Robert Bradley .....	1 do	38 00	38 00
Master, Lock 22 and Bridge .....	do	John McNamara .....	1 do	38 00	38 00
Assistant .....	do	A. W. Bradley .....	1 do	38 00	38 00
Master, Locks 23, 24 and Bridge ..	do	John Neil .....	1 do	42 00	42 00
Assistant .....	do	D. Ryckman .....	1 do	38 00	38 00
Master Lock 25 and Guard Lock ..	do	Rufus Swazzie .....	1 do	38 00	38 00
Assistant .....	do	John Fleullyn .....	1 do	38 00	19 00
Hurst's Bridge .....	do	Jacob Rinker .....	1 do	38 00	38 00
Marlatt's do .....	do	Nelson Higgins .....	1 do	38 00	38 00
Allanburgh Bridge .....	do	A. H. Upper .....	1 do	38 00	38 00
do Lock .....	do	Wm. Higgins .....	1 do	38 00	38 00
Assistant .....	do	Lewis Mosier .....	1 do	38 00	38 00
Allanburg Guard Lock .....	do	Aaron Higgins .....	1 do	38 00	38 00
Assistant .....	do	Oscar Upper .....	1 do	38 00	38 00
Foreman on banks .....	do	John Gearin .....	1 do	38 00	38 00
<i>Feeder Canal.</i>					
Overseer .....	do	John E. Scott .....	1 do	810 00	66 67
Junction Lock .....	do	Geo. Hannah .....	1 do	38 00	38 00
Feeder F. Bridge .....	do	John Henderson .....	1 do	10 00	10 00
Stromness do .....	do	Geo. Harris .....	1 do	38 00	38 00
Port Maitland Lock .....	do	Michael Corcoran .....	1 do	38 00	38 00
Assistant .....	do	Wm. Brenen .....	1 do	38 00	28 00
Regulating water, &c. ....	do	Chas. Thrush .....	1 do	38 00	38 00
					1,801 67

**ACCOUNTS chargeable to Old Welland and Feeder Canal, Staff and Working Expenses.**

Date.	Nature of Works.	Amount.	Total.
1887.		\$ cts.	\$ cst.
Nov. 1.....	To G. N. W. Telegraph Co., Thorold—Telegrams as per original account.....		2 16
do 30.....	G. N. W. Telegraph Co., Dunnville—Telegrams as per original account.....		2 24
do 1.....	Bell Telephone Co., St. Catharines—12 months' rent of instrument (J. B. Smyth).....		35 00
do 30.....	Dunnville Electric Light Co., Dunnville—Lighting for November, 1 lamp, guard lock; 1 lamp, swing bridge.....		10 00
			49 40

**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of November, 1887, to pay permanent establishment and account chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Superintendent.....	Nov., 1887	Wm. Ellis.....	1 month...	2,900 00	241 67
Paymaster.....	do	R. D. Dunn.....	1 do ...	1,400 00	106 67
Accountant.....	do	J. E. Lawrence.....	1 do ...	1,000 00	83 33
Harbor master, Port Dalhousie....	do	Wm. Cooke..	1 do ...	750 00	62 50
do Port Colborne.....	do	C. H. Carter.....	1 do ...	750 00	62 50
Overseer, Division No. 1.....	do	J. G. Demare.....	1 do ...	100 00	100 00
do do No. 2.....	do	James Dell.....	1 do ...	75 00	75 00
do do No. 3.....	do	A. Hamilton.....	1 do ...	60 00	60 00
do do No. 4.....	do	J. K. Secord.....	1 do ...	65 00	65 00
Storekeeper, &c.....	do	W. W. Wait.....	1 do ...	65 00	65 00
Messenger, &c.....	do	Thos. J. Hartley.....	30 days ...	125 00	37 50
In charge of steel and iron bridges, also steam pump, &c...	do	W. Chatfield.....	1 month...	75 00	75 00
<i>Division No. 1.</i>					
Ferryman.....	do	Frank Smith.....	26 days ...	140 00	36 40
Master, Lock 1.....	do	John Woodall.....	1 month...	42 00	42 00
Assistant.....	do	Geo. How.....	1 do ...	45 00	45 00
do .....	do	John Paxton.....	1 do ...	45 00	45 00
do .....	do	John Williams.....	1 do ...	45 00	45 00
Master, Bridge 1.....	do	Philip Ohnith.....	1 do ...	45 00	45 00
Assistant.....	do	Frank Darby.....	1 do ...	45 00	45 00
Master, Lock 2.....	do	Alph Kelly.....	1 do ...	47 00	47 00
Assistant.....	do	Geo. Bowman.....	1 do ...	45 00	45 00
do .....	do	Richard Hullon.....	1 do ...	45 00	45 00
do .....	do	Wm. L. Smith.....	1 do ...	45 00	45 00
Master, Lock 3.....	do	Isaac Johnston.....	1 do ...	47 00	47 00
Assistant.....	do	James Keys.....	1 do ...	45 00	45 00
do .....	do	Cornelius Gorman.....	1 do ...	45 00	45 00
do .....	do	James Grogan.....	1 do ...	45 00	45 00
Master, Bridge 2.....	do	John Flynn.....	1 do ...	45 00	45 00
Assistant.....	do	H. Alexander.....	1 do ...	45 00	45 00
Master, Lock 4.....	do	Jos. Franklin.....	1 do ...	47 00	47 00
Assistant.....	do	Saml. Hopkins.....	1 do ...	45 00	45 00
do .....	do	Saml. Duffin.....	1 do ...	45 00	45 00
do .....	do	Wm. Altoff.....	1 do ...	45 00	45 00
Master, Lock 5.....	do	Thomas Scott.....	1 do ...	47 00	47 00
Assistant.....	do	Jno. Pennington.....	1 do ...	45 00	45 00
do .....	do	Thomas Jones.....	1 do ...	45 00	45 00
do .....	do	John Wilde.....	1 do ...	45 00	45 00



## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 1—Con.</i>				\$ cts.	\$ cts.
Master, Bridge 3.....	Nov., 1887	G. H. Brownlee.....	1 month...	45 00	45 00
Assistant.....	do	W. Morarity.....	1 do	45 00	45 00
Master, Lock 6.....	do	Peter Roxton.....	1 do	47 00	47 00
Assistant.....	do	John Daley.....	1 do	45 00	45 00
do	do	Chas. Newbold.....	1 do	45 00	45 00
do	do	W. Rowman.....	1 do	45 00	45 00
Master, Bridge 5.....	do	Wm. Elliott.....	1 do	45 00	45 00
Assistant.....	do	Geo. Spooner.....	1 do	45 00	45 00
Master, Lock 7.....	do	C. B. Hare.....	1 do	47 00	47 00
Assistant.....	do	M. Sullivan.....	1 do	45 00	45 00
do	do	Wm. Boyle.....	1 do	45 00	45 00
do	do	R. Freeman.....	1 do	45 00	45 00
Master, Bridge 6.....	do	J. W. Grant.....	1 do	45 00	45 00
Assistant.....	do	Alex. Stewart.....	1 do	45 00	45 00
Master, Lock 8.....	do	Nich. Hayden.....	1 do	47 00	47 00
Assistant.....	do	Wm. Reid.....	1 do	45 00	45 00
do	do	R. Secord.....	1 do	45 00	45 00
do	do	M. McCormick.....	16 days...	45 00	24 00
do	do	Thos. McClelland.....	14 do	45 00	21 00
Master, Lock 9.....	do	R. H. Watson.....	1 month...	47 00	47 00
Assistant.....	do	Geo. Mellward.....	1 do	45 00	45 00
do	do	J. C. Longley.....	1 do	45 00	45 00
do	do	Alex. Bradt.....	1 do	45 00	45 00
Master, Bridge 8.....	do	Jno. Cushman.....	1 do	45 00	45 00
Assistant.....	do	James Whellen.....	1 do	45 00	45 00
Master, Lock 10.....	do	Jas. Bradley.....	1 do	47 00	47 00
Assistant.....	do	Jas. Mulvey.....	1 do	45 00	45 00
do	do	Henry Hare.....	1 do	45 00	45 00
do	do	Thos. Nelson.....	1 do	45 00	45 00
Master, Bridge 8.....	do	Arthur Cain.....	1 do	45 00	45 00
Assistant.....	do	Jno. McGeachie.....	1 do	45 00	45 00
Master, Lock 11.....	do	Jas. Reynolds.....	1 do	47 00	47 00
Assistant.....	do	Alex. Wilson.....	1 do	45 00	45 00
do	do	W. P. Burleigh.....	1 do	45 00	45 00
do	do	Jas. Webster.....	1 do	45 00	45 00
Master, Lock 12.....	do	Wm. Strong.....	1 do	47 00	47 00
Assistant.....	do	E. Bradley.....	1 do	45 00	45 00
do	do	F. Mugham.....	1 do	45 00	45 00
do	do	James McBride.....	1 do	45 00	45 00
Master, Lock 13.....	do	Thos. Keating.....	1 do	47 00	47 00
Assistant.....	do	Alex. Soper.....	1 do	45 00	45 00
do	do	Joseph Turner.....	1 do	45 00	45 00
do	do	John Lewin.....	1 do	45 00	45 00
<i>Division No. 2.</i>					
Master, Bridge 9.....	do	Peter Secord.....	1 do	45 00	45 00
Assistant.....	do	John Black.....	1 do	45 00	45 00
Master, Lock 14.....	do	Conl. Nestor.....	1 do	47 00	47 00
Assistant.....	do	Robt. Boyle.....	1 do	45 00	45 00
do	do	John Strong.....	1 do	45 00	45 00
do	do	Thomas Flynn.....	1 do	45 00	45 00
Master, Lock 15.....	do	Thos. Aikens.....	1 do	47 00	47 00
Assistant.....	do	James McAuley.....	1 do	45 00	45 00
do	do	James Boyle.....	1 do	45 00	45 00
do	do	Arch Bradley.....	1 do	45 00	45 00
Master, Lock 16.....	do	Thos. Burley.....	1 do	47 00	47 00
Assistant.....	do	Samuel Bradley.....	1 do	45 00	45 00
do	do	John Holland.....	1 do	45 00	45 00
do	do	Austin Moran.....	1 do	45 00	45 00
Master, Lock 17.....	do	Michael Covey.....	1 do	47 00	47 00
Assistant.....	do	F. Shuman.....	1 do	45 00	45 00
do	do	Michael Glynn.....	1 do	45 00	45 00
do	do	Walter Galbraith.....	1 do	45 00	45 00



PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
<i>Division No. 2—Con.</i>					
Master, Lock 18.....	Nov., 1887	Jas. H. Pierson.....	1 month...	47 00	47 00
Assistant.....	do	Geo. Newton.....	1 do	45 00	45 00
do .....	do	Thos. Hannah.....	1 do	45 00	45 00
do .....	do	James Cook.....	1 do	45 00	45 00
Master, Lock 19.....	do	R. Grisdale.....	1 do	47 00	47 00
Assistant.....	do	I. F. Huffman.....	1 do	45 00	45 00
do .....	do	F. Hoshcke.....	1 do	45 00	45 00
do .....	do	R. Grenville.....	1 do	45 00	45 00
Master, Lock 20.....	do	Jacob Renter.....	1 do	47 00	47 00
Assistant.....	do	Abe. Brewen.....	1 do	45 00	45 00
do .....	do	John Collins.....	1 do	45 00	45 00
do .....	do	Thos. Freel.....	1 do	45 00	45 00
Master, Lock 21.....	do	F. C. Berriman.....	1 do	47 00	47 00
Assistant.....	do	John Cole.....	1 do	45 00	45 00
do .....	do	James Ellis.....	1 do	45 00	45 00
do .....	do	Adelbert Clark.....	1 do	45 00	45 00
Master, Lock 22.....	do	Wm. Hannah.....	1 do	47 00	47 00
Assistant.....	do	Wm. Camp.....	1 do	45 00	45 00
do .....	do	Wm. Boyle.....	1 do	45 00	45 00
do .....	do	Hy. Phillips.....	1 do	45 00	45 00
Master, Lock 23.....	do	Thos. Bonewell.....	$\frac{3}{4}$ do	47 00	10 97
Assistant.....	do	Jas. Smerdon.....	1 do	45 00	45 00
do .....	do	T. Cornmarford.....	1 do	45 00	45 00
do .....	do	John Corbett.....	1 do	45 00	45 00
Master, Lock 24.....	do	R. Campbell.....	1 do	47 00	47 00
Assistant.....	do	M. Henderson.....	1 do	45 00	45 00
do .....	do	Thomas Bradley.....	1 do	45 00	45 00
do .....	do	Henry Kern.....	1 do	45 00	45 00
Master, Bridge 10.....	do	Wm. Fleming.....	1 do	45 00	45 00
Assistant.....	do	F. Donahue.....	1 do	45 00	45 00
Master, Lock 25.....	do	M. McCarthy.....	1 do	47 00	47 00
Assistant.....	do	Geo. Detlor.....	1 do	45 00	45 00
do .....	do	Samuel Campbell.....	1 do	45 00	45 00
do .....	do	Robt. Wright.....	1 do	45 00	45 00
Master, Bridge 12.....	do	Geo. A. Thomas.....	1 do	45 00	45 00
Assistant.....	do	Robt. Camp.....	1 do	45 00	45 00
Master, Guard Lock.....	do	James Hinton.....	1 do	47 00	47 00
Assistant.....	do	Sam. Fraser.....	1 do	45 00	45 00
do .....	do	Fred. Lay.....	1 do	45 00	45 00
do .....	do	James Cook.....	1 do	45 00	45 00
Master, Bridge 13.....	do	Richard Higgins.....	1 do	45 00	45 00
Assistant.....	do	William Upper.....	1 do	45 00	45 00
<i>Division No. 3.</i>					
Master, Bridge 14.....	do	Dan. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	Geo. A. Upper.....	1 do	40 00	40 00
Master, Bridge 15.....	do	Bart. O'Leary.....	1 do	45 00	45 00
Assistant.....	do	Geo. Thompson.....	1 do	45 00	45 00
Port Robinson Ferry.....	do	R. Stevenson.....	1 do	36 00	36 00
do Lock.....	do	James McCoppin.....	1 do	47 00	47 00
Assistant.....	do	James Walsh.....	1 do	45 00	45 00
Master, Bridge 16.....	do	James Edmonds.....	1 do	45 00	45 00
Assistant.....	do	Geo. P. Misner.....	1 do	45 00	45 00
<i>Division No. 4.</i>					
Welland Lock.....	do	William Wilson.....	1 do	45 00	45 00
Master, Bridge 17.....	do	James Foster.....	1 do	45 00	45 00
Assistant.....	do	Luke J. Brennan.....	1 do	45 00	45 00
Master, Bridge 19.....	do	Chas. Hannah.....	1 do	45 00	45 00
Assistant.....	do	Alex. Hannah.....	1 do	45 00	45 00
Humberstone Ferry.....	do	Michael Trayner.....	22½ days..	36 00	27 00
Master, Bridge 21.....	do	Emil Bonabery.....	1 month...	45 00	45 00

PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 4—Con.</i>				\$ cts.	\$ cts.
Assistant.....	Nov., 1887	Isaac Shisler.....	1 month...	45 00	45 00
Port Colborne Lock and Bridge...	do ...	John Henshaw.....	1 do ...	42 00	42 00
do do ...	do ...	John Cook.....	1 do ...	42 00	42 00
do do ...	do ...	John Stevens.....	1 do ...	42 00	42 00
do do ...	do ...	Wm. Aikens.....	1 do ...	42 00	42 00
do do ...	do ...	Jas. Dunlap.....	1 do ...	42 00	42 00
Ferryman.....	do ...	John Bradley.....	1 do ...	42 00	42 00
Watchmen—Signalling and controlling safe passage of vessels through aqueducts at Welland, night and day.....	do ...	Jos. McMurray.....	30 days...	1 50	45 00
do do ...	do ...	James Nixon.....	30 do ...	1 50	45 00
do do ...	do ...	Robert Simpson.....	30 do ...	1 50	45 00
do do ...	do ...	William Nixon.....	30 do ...	1 50	45 00
<i>Division No. 1.</i>					
Machinists—Keeping machinery connected with lock gates in proper order throughout, night and day.....	do ...	Samuel Houston.....	27 days...	2 00	54 00
do do ...	do ...	Chas. Wilson.....	22 do ...	2 00	44 00
do do ...	do ...	Ed. Newall, h. & w...	25 do ...	1 50	21 00
<i>Division No. 2.</i>					
Machinists—Keeping machinery connected with lock gates in proper order throughout, night and day.....	do ...	Isaac McMann.....	32 days...	2 00	64 00
do do ...	do ...	Thomas Ryan.....	32 do ...	1 75	56 00
do do ...	do ...	J. H. Booth, h. & w...	25 do ...	1 50	37 50
Diver.....	do ...	Ed. Smiley.....	25 do ...	2 00	50 00
					8,255 04

## ACCOUNTS chargeable to Welland Canal—Repairs and Renewals.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Nov. 30...	To G. N. W. Telegraph Co., St. Catharines—Telegrams as per original account.....		24 14
do 15...	H. G. Hunt, St. Catharines—Telegram.....		76
do 1-30...	Henry Mussen, Allanburgh— Telegrams as per original account.....	1 16	
	7 gallons coal oil, at 30c., \$2.10; 1 chimney, 8c .....	2 18	3 34
do 30...	G. N. W. Telegraph Co., Port Colborne—Telegrams as per original account.....		14 50
do 30...	Bell Telephone Co., Welland—Messages as per original account.....		3 50



## ACCOUNTS chargeable to Welland Canal—Renewals and Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Nov. 30...	Bell Telephone Co., Port Colborne— Messages as per original account.....	6 85	
	6 months' rent of instrument. &c., \$25.....	12 50	19 35
do 30...	Bell Telephone Co., St. Catharines— Messages as per original account.....	6 40	
	12 months' rent of instrument, canal office.....	35 00	
	12 do 2 extension bells.....	6 00	
	12 do instrument.....	35 00	
	12 do do (drill).....	35 00	117 40
do 1-30...	The Journal Printing Co., St. Catharines—Advertising list of vessels passing through Welland canal, 136, at 4c.....		5 44
do 30...	Welland Post Office, Welland—Stamps as per original ac- count.....		1 25
do 30...	R. A. Abbey, Port Robinson— 17 gallons coal oil, at 30c., \$5.10 ; $\frac{1}{2}$ gallon machine oil, 40c.....	5 50	
	Lamp wick.....	0 20	5 70
do 1-30...	John Mathews, Port Colborne— Lamp chimneys, 80c. ; matches, 15c.....	0 95	
	2 cords wood, at \$4, \$8 ; $\frac{1}{2}$ ton coal, \$1.50.....	9 50	
	34 gallons coal oil, at 30c., \$10.20 ; 1 broom, 30c.....	10 50	20 95
do 1-30...	Wm. L. Garden, Welland— 30 gallons coal oil, at 30c., \$9 ; 1 box matches, 15c.....	9 15	
	2 brass brushes, \$1.35 ; 2 dozen lamp wick, 30c.....	1 65	
	$\frac{1}{2}$ dozen chimneys.....	0 50	11 30
do 18...	Coy Bros., St. Catharines—184 gallons coal oil, at 26c.....		47 84
do 9...	Gordon Mackay & Co., Toronto—500 lbs. coke waste, at 9c.....		45 00
do 30...	Wm. Hutchinson, Port Dalhousie— $1\frac{1}{2}$ tons chestnut coal, at \$7.....		10 50
Nov. 1-30...	H. O'Loughlin, St. Catharines—8 tons chestnut coal, at \$7.....		56 00
do 1-30...	D. Detrick do 7 do.....		49 00
do 1-30...	Richard Leeson, Merriton 8 do.....		56 00
do 1-30...	William Pike, Thorold— 2,528 lbs. coal, Allanburgh, at \$7.....	9 45	
	5,080 do do.....	17 78	27 23
do 1-30...	Grand Trunk Railway Co., St. Catharines—1 month each, 8 Railway Bridge Tenders, St. Catharines and Thorold, \$45 each.....		360 00
do 1-30...	A. Thompson, Welland— $4\frac{1}{2}$ weeks' board and lodging for C. H. Carter, in charge of the Aqueducts at Wel- land, at \$4.....		17 14
[do 19...	R. D. Dunn, Paymaster— Horse and buggy, paymaster, Port Dalhousie.....	1 50	
do 21...	do do Port Robinson, 1 day.....	2 50	
do 21...	Expenses, assistant and horse.....	1 00	
do 22...	Railway fare and hack, Welland and return.....	1 65	
do 23-24...	do Port Colborne, Dunnville and return.....	3 00	
do 19-24...	3 days' board and lodging for self away from home, at \$3.....	9 00	18 65
do 1-30...	H. H. Wait, St. Catharines—Use of horse and waggons for delivering supplies to and from storehouse.....		20 00
			934 99



**PAY LIST** in duplicate of persons employed on the Old Welland Canal and Feeder during the month of December, 1889, to pay permanent establishment, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
Overseer.....	Dec., 1887.	J. B. Smyth .....	1 month...	100 00	100 00	6 00
Master, Lock 1 and Bridge.	do ...	B. Merritt.....	do ...	42 00	21 00	
Assistant .....	do ...	John Woodall.....	do ...	42 00	21 00	
do .....	do ...	B. Hargraft.....	do ...	42 00	21 00	1 31
do .....	do ...	John House.....	do ...	42 00	21 00	
Master, Lock 2 and bridge.	do ...	W. H. Charles... {	do ...	42 00	40 00	1 55
			do ...	35 00		
Assistant .....	do ...	John Sullivan.....	do ...	42 00	21 00	1 31
do .....	do ...	T. Johnson.....	do ...	42 00	21 00	1 31
St. Paul Street Bridge.....	do ...	Wm. McClory.....	do ...	35 00	19 00	1 18
Assistant.....	do ...	T. Sullivan.....	do ...	35 00	19 00	1 18
Master, Lock 3.....	do ...	Alex. Walker.....	do ...	35 00	19 00	1 18
Assistant.....	do ...	Fred Sherer.....	do ...	35 00	19 00	1 18
Master, Lock 4 and Bridge.	do ...	Jas. Livingstone {	do ...	35 00	40 00	1 55
			do ...	42 00		
Assistant.....	do ...	J. R. Brownlee... {	do ...	42 00	21 00	
			do ...	42 00		
Master, Lock 5, 6, 7 and bridge	do ...	Robert Boyle.....	do ...	42 00	21 00	1 31
Assistant.....	do ...	Michael White.....	do ...	42 00	21 00	1 31
Master, Lock 8, 9, 10 and 11	do ...	B. Clarke.....	do ...	38 00	38 00	1 42
Assistant .....	do ...	C. W. Bradley .....	do ...	38 00	19 00	1 18
Master, Lock 12, 13, 14, 15.	do ...	James Cogan.....	do ...	38 00	38 00	1 42
Assistant .....	do ...	Martin Nester.....	do ...	38 00	19 00	1 18
Master, Lock 16, 17 and 18.	do ...	B. Darby .....	do ...	38 00	19 00	1 18
Assistant .....	do ...	E. Gibson .....	do ...	38 00	19 00	1 18
Master, Lock 19, 20, 21.....	do ...	E. McLaughlin .....	do ...	38 00	19 00	1 18
Assistant .....	do ...	Robert Bradley.....	do ...	38 00	38 00	1 44
Master, Lock 22 and Bridge	do ...	J. McNamara.....	do ...	38 00	38 00	1 44
Assistant .....	do ...	A. W. Bradley.....	do ...	38 00	19 00	1 18
Master, Lock 23, 24, 25, and bridge.....	do ...	John Neil..... {	do ...	42 00	40 00	1 55
			do ...	38 00		
Assistant .....	do ...	R. Swazzie.....	do ...	38 00	19 00	1 18
Guard Lock .....	do ...	D. Ryckman.....	do ...	38 00	19 00	1 18
Hurst's Bridge.....	do ...	Jacob Renter.....	do ...	38 00	19 00	1 18
Marlatt's Bridge.....	do ...	Nelson Higgins.....	do ...	38 00	19 00	1 18
Allanburgh Bridge.....	do ...	A. H. Upper.....	do ...	38 00	19 00	1 18
do Lock.....	do ...	Wm. Higgins.....	do ...	38 00	38 00	over 35 yrs
Assistant .....	do ...	Lewis Mosier.....	do ...	38 00	38 00	1 42
Allanburgh Guard Lock ...	do ...	A. Higgins.....	do ...	38 00	19 00	over 35 yrs
Assistant .....	do ...	Oscar Upper.....	do ...	38 00	19 00	
Foreman on banks .....	do ...	John Gearin.....	do ...	38 00	38 00	1 42
<b>Feeder Canal.</b>						
Overseer.....	do ...	John E. Scott.....	do ...	800 00	66 66	4 00
Junction Lock.....	do ...	Geo. Hannah.....	do ...	38 00	38 00	1 42
Feeder Float Bridge.....	do ...	Jno. Henderson.....	do ...	10 00	5 00	
Stromness do .....	do ...	Geo. Harris.....	do ...	38 00	19 00	1 18
Port Maitland Lock.....	do ...	Michael Corcoran.....	do ...	38 00	19 00	1 18
Assistant .....	do ...	Wm. Brennan.....	do ...	38 00	19 00	
Regulating water, &c.....	do ...	Chas. Thrush.....	do ...	38 00	38 00	over 35 yrs
					1,202 66	51 20

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**ACCOUNTS chargeable to old Welland Canal and Feeder, Staff and Working Expenses.**


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Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Dec. 7.....	To John Jenkin & Co., St. Catharines— 14 gals. coal oil..... 1 feather duster, 85c and brush, 65c. ; 1 pail, 25c.. .....	3 50 1 75	5 25
do 17...	St. Catharines and Welland Canal Gas Light Co.—Gas supplied old Welland Canal for season 1887—9 lamps as per original account, at 30c.....		270 00
do 31...	Dunnville Electric Light Co., Dunnville—Lighting for December, 1887—1 lamp new bridge; 1 lamp guard lock—62 nights, at 16½c.....		10 34
do 31...	Dunnville Post Office, Dunnville— Postage stamps for 1887..... Rent of box for 1888.....	12 25 1 00	13 25
do 23...	J. H. Smith, Dunnville—Stationery as per original account	5 03	
do 31...	John B. Smith, Merritton— Use of horse and waggon in connection with duties of overseer—3 months, ending Dec. 31st, 1887, at \$1.50... 3 months' house rent, at \$8.....	37 50 24 00	61 50
do ...	John S. Scott, Dunnville—Use of horse and waggon in connection with duties of overseer for 3 months, ending Dec. 31st, 1887, as per original account.....		35 00
			400 37

PAY-LIST in duplicate of Persons employed on the Welland Canal during the month of December, 1887, to pay permanent establishment, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
Superintendent.....	Dec., 1887	Wm. Ellis.....	1 month..	2,900 00	241 66	14 50
Paymaster.....	do	R. D. Dunn.....	1 do ..	1,400 00	116 66	7 00
Accountant.....	do	J. E. Lawrence....	1 do ..	1,000 00	83 34	
Harbor Master, Port Dalhousie.....	do	Wm. Cook.....	1 do ..	750 00	62 50	3 75
Harbor Master, Port Colborne.....	do	C. H. Carter.....	1 do ..	750 00	62 50	3 75
Overseer, Division No. 1.....	do	J. G. Demare.....	1 do ..	100 00	100 00	6 00
do No. 2.....	do	James Dell.....	1 do ..	75 00	75 00	
do No. 3.....	do	A. Hamilton.....	1 do ..	60 00	60 00	3 60
do No. 4.....	do	T. E. Secord.....	1 do ..	65 00	65 00	
Storekeeper, &c.....	do	W. W. Wait.....	1 do ..	65 00	65 00	
Messenger, &c.....	do	Thos. J. Hartley...	31 days..	1 25	38 75	
In charge of steel and iron bridges, steam pumps and caisson, &c.....	do	W. Chatfield.....	1 month..	75 00	75 00	
<i>Division No. 1.</i>						
Port Dalhousie Ferryman...	do	Frank Smith.....	27 days..	1 40	37 80	
Master, Lock 1.....	do	J. M. Woodall.....	1 month..	38 00	40 00	1 50
do .....	do	do .....	do ..	42 00		
Assistant.....	do	George Howe.....	do ..	45 00		
do .....	do	John Paxton.....	do ..	45 00	22 50	1 41
do .....	do	Thos. Williams....	do ..	45 00	22 50	
Master, Bridge 1.....	do	Frank Darby.....	do ..	45 00	22 50	
Assistant.....	do	Phillip Ohnith....	do ..	45 00	22 50	
Master, Lock 2.....	do	Alph. Kelley.....	do ..	45 00	46 00	
do .....	do	do .....	do ..	47 00		
Assistant.....	do	Geo. Bowman.....	do ..	45 00		
do .....	do	Richard Hutton....	do ..	45 00	22 50	
do .....	do	Wm. L. Smith.....	do ..	45 00	22 50	1 41
Master, Lock 3.....	do	Isaac Johnston....	do ..	47 00	23 50	
Assistant.....	do	James Keys.....	do ..	45 00	22 50	
do .....	do	James Grogan....	do ..	45 00	6 00	
do .....	do	Con. Gorman.....	do ..	45 00	22 50	1 41
Master, Bridge 2.....	do	John Flynn.....	do ..	45 00	22 50	1 41
Assistant.....	do	H. Alexander.....	1 do ..	45 00	45 00	
Master, Lock 4.....	do	Jos. Franklin.....	do ..	47 00	23 50	
Assistant.....	do	Sam Hopkins.....	do ..	45 00	22 50	
do .....	do	Wm. Altoffs.....	do ..	45 00	22 50	
do .....	do	Sam Duffin.....	do ..	45 00	22 50	1 41
Master, Lock 5.....	do	Thomas Scott.....	do ..	47 00	23 50	
Assistant.....	do	John Pennington..	do ..	45 00	22 50	
do .....	do	Thomas Jones.....	do ..	45 00	22 50	
do .....	do	John Wilde.....	do ..	45 00	22 50	
Master, Bridge 3.....	do	G. H. Brownlee....	do ..	45 00	22 50	
Assistant.....	do	M. Morarity.....	1 do ..	45 00	45 00	
Master, Lock 6.....	do	Peter Paxton.....	1 2 do ..	47 00	23 50	
Assistant.....	do	John Daley.....	1 do ..	45 00	45 00	
do .....	do	Chas. Newbold....	do ..	45 00	22 50	
do .....	do	W. Bowman.....	do ..	45 00	22 50	
Master, Bridge 5.....	do	Wm. Elliott.....	1 do ..	45 00	45 00	
Assistant.....	do	Geo. Spooner.....	do ..	45 00	22 50	
Master, Lock 7.....	do	C. B. Hare.....	do ..	47 00	23 50	1 41
Assistant.....	do	M. Sullivan.....	do ..	45 00	22 50	
do .....	do	Wm. Boyle.....	do ..	45 00	22 50	1 41
do .....	do	R. Freeman.....	do ..	45 00	22 50	
Master, Bridge 6.....	do	J. W. Grant.....	1 do ..	45 00	45 00	
Assistant.....	do	Alex. Stewart.....	do ..	45 00	22 50	
Master, Lock 8.....	do	Nich. Hayden.....	do ..	47 00	23 50	
Assistant.....	do	W. Reid.....	do ..	45 00	22 50	
do .....	do	R. Secord.....	do ..	45 00	22 50	
do .....	do	Thos. McClelland..	do ..	45 00	22 50	



PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
Master, Lock 9. ....	Dec., 1887.	R. H. Watson.....	1 month..	47 00	} 46 00	
do .....	do	do .....	do	45 00		
Assistant.....	do	G. W. Millward.....	do	45 00		22 50
do .....	do	Jos. C. Longley....	do	45 00	22 50	
do .....	do	Alex. Bradt.....	do	45 00	22 50	
Master, Bridge 7.....	do	Jas. Whitter.....	do	45 00	22 50	
Assistant.....	do	John Cushman.....	do	45 00	22 50	
Master, Lock 10.....	do	Jas. Brady.....	do	47 00	} 46 00	1 75
do .....	do	do .....	do	45 00		
Assistant.....	do	Jas. Mulvey.....	do	45 00		
do .....	do	Henry Hare.....	do	45 00	22 50	1 41
do .....	do	Thos. Nelson.....	do	45 00	22 50	1 41
Master, Bridge 8.....	do	Geo. R. Boyle.....	1 do	45 00	45 00	
Assistant.....	do	John McGeachie....	do	45 00	22 50	
Master, Lock 11.....	do	Jas. Reynolds.....	do	47 00	23 50	
Assistant.....	do	Alex. Wilson.....	do	45 00	22 50	1 41
do .....	do	W. P. Burleigh.....	do	45 00	22 50	
do .....	do	Jas. Webster.....	do	45 00	22 50	
Master, Lock 12.....	do	Wm. Strong.....	do	45 00	} 46 00	1 75
do .....	do	do .....	do	47 00		
Assistant.....	do	E. Brady.....	do	45 00	22 50	
do .....	do	F. Meighan.....	do	45 00	22 50	
do .....	do	Jas. McBride.....	do	45 00	22 50	
Master, Lock 13.....	do	Thos. Keating.....	do	45 00	} 46 00	
do .....	do	do .....	do	47 00		
Assistant.....	do	Alex. Soper.....	do	45 00	22 50	
do .....	do	Joseph Turner.....	do	45 00	22 50	
do .....	do	John Lewin.....	do	45 00	22 50	
<i>Division No. 2.</i>						
Master, Bridge 9.....	do	Peter Secord.....	1 do	45 00	22 50	
Assistant.....	do	John Black.....	do	45 00	22 50	
Master, Lock 14.....	do	Con. Nestor.....	do	47 00	23 50	
Assistant.....	do	Robert Boyle.....	do	45 00	22 50	
do .....	do	John Strong.....	do	45 00	22 50	
do .....	do	Thos. Flynn.....	do	45 00	22 50	1 41
Master, Lock 15.....	do	Thos. Aikens.....	do	47 00	23 50	
Assistant.....	do	James McAuley.....	do	45 00	22 50	1 41
do .....	do	James Boyle.....	do	45 00	22 50	
do .....	do	W. J. Wilson.....	do	45 00	22 50	
Master, Lock 16.....	do	Thos. Burley.....	do	47 00	23 50	
Assistant.....	do	Sam. Brady.....	do	45 00	22 50	
do .....	do	John Holland.....	1 do	45 00	45 00	
do .....	do	Austin Moran.....	do	45 00	22 50	Over 35 ys
Master, Lock 17.....	do	Mich. Coody.....	do	47 00	23 50	
Assistant.....	do	F. Shuman.....	do	45 00	22 50	
do .....	do	Mich. Glynn.....	do	45 00	22 50	
do .....	do	W. Galbraith.....	do	45 00	22 50	
Master, Lock 18.....	do	J. H. Pearson.....	do	47 00	23 50	
Assistant.....	do	Geo. Newton.....	do	45 00	22 50	
do .....	do	Thos. Hannah.....	do	45 00	22 50	
do .....	do	Jos. Cook.....	do	45 00	22 50	
Master, Lock 19.....	do	R. Grisdale.....	do	47 00	23 50	
Assistant.....	do	Abe Brenen.....	do	45 00	22 50	
do .....	do	F. Hoschke.....	do	45 00	22 50	
do .....	do	R. Grenville.....	do	45 00	22 50	
Master, Lock 20.....	do	Jacob Renter.....	do	47 00	} 46 00	
do .....	do	do .....	do	45 00		
Assistant.....	do	J. F. Huffman.....	do	45 00		22 50
do .....	do	John Collins.....	do	45 00	22 50	1 41
do .....	do	Thos. Freel.....	do	45 00	22 50	1 41
Master, Lock 21.....	do	F. C. Berriman.....	do	47 00	23 50	
Assistant.....	do	John Cole.....	do	45 00	22 50	
do .....	do	James Ellis.....	do	45 00	22 50	
do .....	do	Adelbert Clarke....	do	45 00	22 50	

PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.	Superannuation.
<i>Division No. 2.—Con..</i>				\$ cts.	\$ cts.	\$ cts.
Master, Lock 22.....	Dec., 1887	Wm. Hannah.....	1 month..	47 00	23 50	
Assistant.....	do	Wm. Camp.....	do	45 00	22 50	
do	do	Henry Phillips.....	do	45 00	22 50	
do	do	Wm. Boyle.....	do	45 00	22 50	
Master, Lock 23.....	do	T. Bonewell.....	do	45 00	46 00	
do	do	do	do	47 00		
Assistant.....	do	Jas. Smerdon.....	do	45 00	22 50	
do	do	T. Commarford.....	do	45 00	22 50	1 41
do	do	John Corbett.....	do	45 00	22 50	1 41
Master, Lock 24.....	do	R. Campbell.....	do	45 00	46 00	
do	do	do	do	47 00		
Assistant.....	do	M. Henderson.....	do	45 00	22 50	
do	do	Thos. Bradley.....	do	45 00	22 50	
do	do	Henry Kerns.....	do	45 00	22 50	
Master, Bridge 10.....	do	Wm. Fleming.....	do	45 00	22 50	
Assistant.....	do	F. Donahue.....	do	45 00	22 50	
Master, Lock 25.....	do	M. McCarthy.....	do	45 00	46 00	1 75
do	do	do	do	47 00		
Assistant.....	do	Geo. Detlor.....	do	45 00	22 50	
do	do	Sam Campbell.....	1 do	45 00	45 00	
do	do	Robert Wright.....	do	45 00	22 50	
Master, Bridge 12.....	do	Geo. A. Thomas.....	do	45 00	22 50	
Assistant.....	do	Robert Camp.....	do	45 00	22 50	
Master, Guard Lock.....	do	James Winton.....	do	47 00	23 50	
Assistant.....	do	Fred Lay.....	do	45 00	22 50	1 41
do	do	Samuel Fraser.....	do	45 00	22 50	
do	do	James Cook.....	do	45 00	22 50	
Master, Bridge 13.....	do	Richard Higgins.....	do	45 00	22 50	1 41
Assistant.....	do	Wm. Upper.....	do	45 00	22 50	
<i>Division No. 3.</i>						
Master, Bridge 14.....	do	Daniel O'Leary.....	1 do	45 00	22 50	1 41
Assistant.....	do	Geo. A. Upper.....	do	40 00	20 00	
Master, Bridge 15.....	do	Bart. O'Leary.....	do	45 00	22 50	1 41
Assistant.....	do	George Thompson.....	do	45 00	22 50	1 41
Port Robinson Ferry.....	do	R. Stevenson.....	19 days..	36 00	22 80	
Port Robinson Lock.....	do	Jas. McCoppin.....	1 month..	47 00	23 50	1 47
Assistant.....	do	James Walsh.....	do	45 00	22 50	1 41
Master, Bridge 16.....	do	James Edmonds.....	do	45 00	22 50	1 41
Assistant.....	do	Geo. P. Misner.....	do	45 00	22 50	
<i>Division No. 4.</i>						
Master, Welland Lock.....	do	Wm. Wilson.....	1 do	45 00	22 50	
do Bridge 17.....	do	James Foster.....	1 do	45 00	45 00	1 69
Assistant.....	do	Luke J. Brenan.....	do	45 00	22 50	
Master, Bridge 19.....	do	Chas. Hannah.....	do	45 00	22 50	1 41
Assistant.....	do	Alex. Hannah.....	do	45 00	22 50	1 41
Humberstone Ferry.....	do	Michael Trayner.....	do	36 00	18 00	
Master, Bridge 21.....	do	Emil Boneberg.....	do	45 00	22 50	1 41
Assistant.....	do	Isaac Shisler.....	do	45 00	22 50	
Port Colborne Lock and Bridge.....	do	John Henshaw.....	do	42 00	40 00	1 55
do do	do	do	do	38 00		
do do	do	John Cooke.....	do	42 00	21 00	1 31
do do	do	John Stevens.....	do	42 00	21 00	1 31
do do	do	Wm. Aikens.....	do	42 00	21 00	1 31
do do	do	J. Dunlop.....	do	42 00	21 00	
Port Colborne Ferry.....	do	John Bradley.....	do	42 00	21 00	
Assistant Ferryman.....	do	John Bradley, jun..	do	42 00	21 00	

PAY-LIST in duplicate of persons employed on the Welland Canal—*Continued.*

Capacity.	When Employed	Names.	Time.	Date.	Amount.	Super-annuation
				\$ cts.	\$ cts.	\$ cts.
AQUEDUCT.						
Signalling and controlling safe passage of vessels through Aqueduct at Welland.....	do	... Jos. McMurray.....	3 days....	1 50	4 50	
do do ...	do	... James Nixon.....	3 do ...	1 50	4 50	
do do ...	do	... Robt. Simpson.....	3 do ...	1 50	4 50	
do do ...	do	... Wm. Nixon.....	3 do ...	1 50	4 50	
MACHINEISTS.						
<i>Divisions Nos. 1 and 2.</i>						
Keeping machinery connected with lock gates and waste weirs in proper order throughout.....	do	... Samuel Houston ...	19½ do ...	2 00	39 00	
do do ...	do	... Charles Nelson.....	13 do ...	2 00	26 00	
do do ...	do	... A. Reed, H & W...	14 do ...	1 50	21 00	
do do ...	do	... Isaac McMann.....	12 do ...	2 00	26 00	
do do ...	do	... Thomas Ryan.....	13 do ...	1 75	22 75	
Diver.....	do	... Edwin Smiley.....	13 do ...	2 00	26 00	
					5,070 76	92 17



# ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Dec. 1-31...	To G. N. W. Telegraph Co., St. Catharines—Telegrams as per original account.....		8 52
do 1-31...	C. P. R. Telegraph Co., St. Catharines—Telegrams as per original account.....		1 73
do 1-31...	Henry Mussen, Allanburgh—4 gallons coal oil, at 30c.....		1 20
do 7...	R. A. Abbey, Port Robinson—		
Aug. 3 }	3 gallons coal oil.....	90	
Dec. 12 }	Telegrams as per original account.....	1 92	2 82
do 31...	John Cloy, Lock 25, New Canal—Telephone messages.....		1 50
do 1-31...	Bell Telephone Co., Welland—Messages as per original account.....		1 20
do 31...	St. Catharines Post Office, St. Catharines—Post office box rent, July 1, 1888.....		4 50
do 31...	L. G. Carter, P. M., Port Colborne—Postage stamps, &c., as per original account.....		5 81
do 6...	The Mail Printing Co., Toronto—Advertising closing of canals.....		3 30
do 3...	The Journal Printing Co., St. Catharines—Advertising closing of canals.....		4 00
do 31...	G. H. Burgar, Welland—12 months' rent of room for the paymaster, Welland Canal, 50c.....		6 00
Sept. 10...	John Jenkin & Co., St. Catharines—		
Oct. 28...	1 gross lamp wick.....	70	
Dec. 23...	4 dozen long chimneys, \$6 ; 2 dozen medium, \$2.40.....	8 40	
	3 leader lamp chimneys.....	45	9 55
Nov. 30...	W. N. Gardner, Welland, 1 box matches, 15c. ; 3 gallons coal oil, 90c.....		1 05
Dec. 31...	St. Catharines Water Commissioners, St. Catharines—4 quarters water, paid, Dec. 31, 1886.....		21 00
do 17...	St. Catharines and Welland Canal Gas Light Co—		
	Balance on contract for new canal, gas supplied for season, 1887.....	5,000 00	
do 1...	25,400 feet gas supplied canal offices, 12 months per metre, \$2.50.....	63 50	5,063 50
Dec. 28...	Henry O'Loughlin, St. Catharines—1 ton nut coal.....		7 00
	Wm. Hutchison, Port Dalhousie—		
Nov. 29...	1 ton soft coal.....	4 75	
Dec. 1-31...	3 tons hard coal.....	21 00	25 75
do 13-23...	Wm. Pike, Thorold—4,885 lbs. hard coal, at \$7.....		17 09
do 8...	John Matthews, Port Colborne— $\frac{1}{2}$ ton coal.....		3 25
do 1-31...	A. Thompson, Welland—2 $\frac{1}{2}$ weeks' board for C. H. Carter, in charge of aqueduct at Welland.....		11 44
do 31...	Grand Trunk Railway Co., St. Catharines— $\frac{1}{2}$ month 8 railway bridge tenders, St. Catharines and Thorold, at \$45.....		180 00
do 31...	J. G. Duncan, Overseer Division No. 1, Port Dalhousie—		
	Use of horse and waggon in connection with duties of overseer, three months ending Dec. 31, 1887, at \$150....	37 50	
	Postage for 1 year.....	6 06	43 56
do 31...	James Dell, Overseer Division No. 2, Thorold—		
	Use of horse and waggon in connection with duties of overseer, 3 months ending Dec. 31, 1887, at \$150.....	37 50	
	3 months' house rent, at \$8.....	24 00	61 50
do 31...	A. Hamilton, Overseer Division No. 3, Port Robinson—		
	3 months' house rent, at \$8.....	24 00	
	Horse and waggon delivering coal oil, 1887.....	30 00	
	Paid freight on paint from Thorold.....	0 35	
	Paid postage 3 months, 42c. ; P. O. box, \$1.....	1 42	
	Railway fares 3 months.....	1 55	57 32

## ACCOUNTS chargeable to Welland Canal, Staff and Working Expenses.

Date.	Nature of Works.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Dec. 31...	Thos. R. Secord, Overseer, Division 4, St. Catharines— Railway fares as follows, for 3 months ending December 31, 1887:—		
	3 railway fares, St. Catharines and return. \$1.20.....	3 60	
	43 do Welland do 4.50.....	19 35	
	30 do Arkin do 0.25.....	7 50	
	1 do Thorold do 1.00.....	1 00	
			31 45
do 31...	W. W. Wait, St. Catharines—Services of horse and wagon delivering supplies to and from store house.....		20 00
do 21...	John Cook, Port Colborne—Reporting vessels and light- erages at elevator, during season 1887.....		20 00
do 31...	M. A. Harpley, St. Catharines—Services for 3 months, ending December 31, 1887, as charwoman, Welland Canal Office, at \$100 per annum.....		25 00
do 31...	The News Publishing Co., St. Catharines— Subscription <i>Daily News</i> , 6 months.....	2 00	
	Advertising closing canals.....	4 40	
			6 40
	R. D. Dunn, Paymaster, St. Catharines— The following expenditure in connection with the pay- ment of Welland Canal pay rolls, November, 1887:—		
do 19...	Horse and buggy 1 day up canal.....	2 50	
do 21...	Expenses, assistant and horse.....	1 00	
	Railway and back fare, Welland and return.....	1 55	
	do do Port Colborne, Dunnville and return.....	3 00	
do 19-23...	3 days' board and lodging for superintendent away from home, at \$3.....	9 00	
			17 05
do 31...	William Ellis, Superintendent, St. Catharines— Allowance for quarter, ending December 31, 1887.....	75 00	
	Sundry telegrams sent and received during the quarter..	6 20	
			81 20
			5,743 69

**PAY-LIST** in duplicate of persons employed on the Welland Canals during the season of Navigation, to pay season allowances, chargeable to Staff and Working Expenses.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
	Season of Navigation			Per Season	
				\$ cts.	\$ cts.
Checking passes and keeping record of vessels passing thro' and timing tugs and steamers from Lock 7 to 8.....	do ...	C. B. Hare.....	8 months..	60 00	60 00
do do .....	do ...	Wm. Doyle.....	8 do ...	40 00	40 00
Timing tugs and steamers, Lock 8 to 7,.....	do ...	N. S. Hayden.....	8 do ...	25 00	25 00
do do .....	do ...	R. Secord.....	8 do ...	20 00	20 00
Timing tugs and steamers, Lock 25 do .....	do ...	W. McCarthy.....	8 do ...	25 00	25 00
do do .....	do ...	Sam. Campbell.....	8 do ...	20 00	20 00
Timing tugs and steamers, Port Colborne.....	do ...	John Henshaw.....	8 do ...	30 00	30 00
do do .....	do ...	John Cook.....	8 do ...	30 00	30 00
<i>Old Welland Canal.</i>					
Checking passes and keeping record of vessels passing thro' Lock 1, and timing tugs, &c....	do ...	B. Merritt.....	8 do ...	30 00	30 00
do do .....	do ...	R. Hargraff.....	8 do ...	15 00	15 00
do do Lock 25....	do ...	John Fluellyn.....	6 do ...	20 00	15 00
do do do .....	do ...	John Niel .....	2 do ...	20 00	5 00
					315 00

**REPAIRS FROM 1st JULY, 1887, TO 31st DECEMBER, 1887.**

**PAY-LIST** in duplicate of persons employed on the Dunnville Division of the Welland Canal, during the month of July, 1887, to repair the west pier at Port Maitland, chargeable to Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	July, 1887	James Edgar.....	25 days....	2 00	50 00
do .....	do ...	R. Michell.....	19 do ...	1 50	28 50
do .....	do ...	Nelson Banks.....	23 do ...	1 50	34 50
do .....	do ...	John Taylor.....	18 do ...	1 50	27 75
do .....	do ...	Robt. Cline.....	3 do ...	1 50	4 50
do .....	do ...	Stephen Wilds.....	3 do ...	1 50	4 50
Laborer.....	do ...	J. Vanderburgh.....	6 do ...	1 25	7 50
					157 25

**ACCOUNTS Chargeable to Welland Canal Construction.**

James Rolston.....	\$ cts.
M. A. Smith.....	215 18
A. McDonald .....	176 61
	2,480 62
	2,872 41



**PAY-LIST** in duplicate of persons employed on the Welland Canal during the month of July, 1887, to pay for building store shed, Port Dalhousie, driving piles and building tug dock, Port Colborne, re-building lock gates, repairing tanks, cleaning out ditches and culverts, also cutting thistles, &c., chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman, carpenter.....	July, 1887	H. Vanderburgh.....	1 month...	75 00	75 00
Carpenter.....	do	Jas. Hindson.....	26 days.....	2 00	52 00
do.....	do	Wm. Patterson.....	25 1/2 do	2 00	50 50
do.....	do	Alf. Coons.....	25 do	2 00	50 00
do.....	do	Wm. M. Jones.....	12 do	2 00	24 00
do.....	do	Robert Abbey.....	3 1/2 do	2 00	7 00
Handy man.....	do	John Doig.....	23 1/2 do	1 75	41 13
do.....	do	Robert Johnston.....	24 do	1 75	42 00
Painter.....	do	A. Impey.....	21 do	2 00	42 00
Laborer.....	do	R. Houston.....	22 do	1 50	33 00
do.....	do	Geo. Irving.....	24 1/2 do	1 50	36 75
Team.....	do	Joseph Johnston.....	23 1/2 do	3 50	82 25
Watchman.....	do	Oscar Sharp.....	31 do	1 50	46 50
do.....	do	John McMillan.....	31 do	1 20	37 20
<i>Division 1.</i>					
Laborer.....	do	J. Reynard, foreman..	24 do	2 00	48 00
do.....	do	Jos. Andrews.....	19 1/2 do	1 50	29 63
do.....	do	Ed. Crosby.....	16 do	1 50	24 00
do.....	do	Cob. Longley.....	21 do	1 50	31 50
do.....	do	C. Cushman.....	17 1/2 do	1 50	26 63
do.....	do	Thos. Kelley.....	17 do	1 50	25 50
do.....	do	J. Stiven.....	17 do	1 50	16 50
do.....	do	Geo. Sheltus.....	22 do	1 50	33 00
do.....	do	Thos. Hayden.....	19 do	1 50	28 50
do.....	do	Peter Patterson.....	5 do	1 50	7 50
<i>Division 2.</i>					
Laborer.....	do	Geo. Putland.....	6 do	1 50	9 00
do.....	do	Wm. Wells.....	6 do	1 50	9 00
do.....	do	Hiram Dell.....	16 do	1 50	24 00
do.....	do	Thos. Donahue.....	9 do	1 50	13 50
do.....	do	Wm. Clark.....	6 do	1 50	9 00
do.....	do	Michael Nestor.....	18 do	1 50	27 00
do.....	do	J. H. Booth.....	26 do	1 50	39 00
<i>Division No. 3.</i>					
Laborer.....	do	G. A. Jordan, foreman	25 do	2 00	50 00
do.....	do	James Hansell.....	24 1/2 do	1 50	36 75
do.....	do	John Madigan.....	24 1/2 do	1 50	36 75
do.....	do	Geo. Brown.....	23 1/2 do	1 50	35 25
do.....	do	Benj. Redfern.....	24 1/2 do	1 50	36 75
do.....	do	John McPherson.....	23 1/2 do	1 50	35 25
do.....	do	Levi Wilson.....	23 1/2 do	1 50	34 88
do.....	do	Wm. J. Abbey.....	22 1/2 do	1 50	33 75
do.....	do	A. McIntosh.....	23 do	0 75	17 25
<i>Divisions Nos. 3 and 4.</i>					
Laborer.....	do	J. Clancey, foreman..	26 do	2 00	52 00
do.....	do	Hugh Bailey.....	26 do	1 50	39 00
do.....	do	M. Blake.....	26 do	1 50	39 00
do.....	do	J. Waldron.....	12 do	1 50	18 00
do.....	do	Thos. Nolan.....	12 do	1 50	18 00
do.....	do	Wm. Pew.....	26 do	1 50	39 00
do.....	do	L. Barnes, watchboy..	12 do	0 75	9 00

## PAY-LIST in duplicate of Persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 4.</i>				\$ cts.	\$ cts.
Carpenter .....	July. 1887	F. T. Walton, foreman	26½ days...	2 75	72 87
do .....	do	S. R. Bradley .....	24½ do ...	2 00	49 00
do .....	do	D. S. Walton .....	25 do ...	2 00	50 00
do .....	do	Ed. Smith .....	25 do ...	2 00	50 00
do .....	do	Wm. Dunn .....	24½ do ...	2 00	49 00
do .....	do	S. J. Hill .....	26 do ...	2 00	52 00
do .....	do	L. Chase .....	19 do ...	2 00	38 00
do .....	do	J. Chase .....	19 do ...	2 00	38 00
do .....	do	G. Chase .....	19 do ...	2 00	38 00
do .....	do	J. Miller .....	19 do ...	2 00	38 00
Laborer .....	do	F. Shuman .....	14 do ...	1 75	42 00
do .....	do	Wm. Bradley .....	19 do ...	1 50	28 50
do .....	do	G. B. Jordan .....	23 do ...	1 50	34 50
do .....	do	Geo. Mathews .....	20 do ...	1 50	30 00
Horse and waggon .....	do	H. Cook .....	1½ do ...	2 00	3 00
Team .....	do	Saml. Cook .....	14 do ...	3 50	49 00
Horse and waggon .....	do	F. T. Walton .....	1 do ...	1 50	1 50
Carpenter .....	do	Wm. Tinlin, foreman	4 do ...	2 00	} 41 75
do .....	do	do .....	15 do ...	2 25	
Helpers, &c. ....	do	Alf. Tinlin .....	14 do ...	1 50	21 00
do .....	do	John Weaver .....	1 do ...	1 50	1 50
do .....	do	John Sutton .....	1 do ...	1 50	1 50
do .....	do	do horse .....	1 do ...	1 50	1 50
Laborer .....	do	Wm. Cook, foreman ..	26 do ...	2 00	52 00
do .....	do	Jacob Cook .....	26 do ...	1 50	39 00
do .....	do	Wm. Decks .....	24 do ...	1 50	36 00
do .....	do	Chas. Keen .....	22½ do ...	1 50	33 75
do .....	do	John Hardeson .....	15½ do ...	1 50	23 25
do .....	do	Jas. Leslie .....	23 do ...	1 50	34 50
do .....	do	E. Bradley .....	2 do ...	1 50	3 00
do .....	do	J. Moyer .....	2 do ...	1 50	3 00
do .....	do	Geo. Julian .....	26 do ...	1 50	39 00
Watchman .....	do	John Hanley .....	30 do ...	1 00	30 00
<i>Old Welland and Feeder Canal.</i>					
Carpenter .....	do	N. Morey, foreman ...	27½ do ...	2 75	75 62
do .....	do	P. Shortell .....	25½ do ...	2 00	51 00
do .....	do	S. Radcliffe .....	27½ do ...	2 00	55 00
do .....	do	T. Rapsey .....	26½ do ...	2 00	52 00
Watchman .....	do	J. W. Boyle .....	31 do ...	1 00	31 00
Team .....	do	Chas. Hill .....	25½ do ...	3 50	88 37
Laborer .....	do	Thos. O'Neil, foreman	29 do ...	2 00	58 00
do .....	do	R. Wilson .....	25 do ...	1 50	37 50
do .....	do	W. Chandler .....	26 do ...	1 50	39 00
do .....	do	Jno. Hunphill .....	26 do ...	1 50	39 00
do .....	do	Rich. Grant .....	31 do ...	1 00	31 00
do .....	do	Wm. Assell .....	15½ do ...	1 25	19 38
Quarryman .....	do	J. Hamilton, foreman	26½ do ...	2 00	52 00
do .....	do	Arthur Bradley .....	23½ do ...	1 50	35 25
do .....	do	Jas. Taxwell .....	25 do ...	1 50	37 50
do .....	do	Jerry Langhey .....	24½ do ...	1 50	36 75
do .....	do	Jno. Brennan .....	24 do ...	1 50	36 00
do .....	do	Clarke Dennis .....	7½ do ...	1 50	11 25
do .....	do	Abr. Bradley .....	21½ do ...	1 50	32 25
do .....	do	Jno. Dundees .....	22½ do ...	1 50	33 75
Team .....	do	Chas. Tenbrook .....	18½ do ...	3 50	64 75
Laborer .....	do	Arthur Bradley .....	25 do ...	1 50	37 50
do .....	do	Wm. Clarke .....	25 do ...	1 50	37 50
do .....	do	Pat. Griffin .....	25 do ...	1 50	37 50
do .....	do	James Ward .....	26 do ...	1 50	39 00
do .....	do	Ed. Elliott .....	9 do ...	1 50	13 50
do .....	do	P. Morgan .....	26 do ...	0 75	19 50

PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 4—Concluded.</i>	1887.			\$ cts.	\$ cts.
<b>Laborer</b> .....	July .....	John Thrush.....	25 days ...	1 50	37 50
do .....	do .....	Ira Bessey.....	24 do ...	1 50	36 00
do .....	do .....	E. Webber .....	25 do ...	1 25	31 25
do .....	do .....	R. Runchey .....	25 do ...	1 25	31 25
do .....	do .....	Jas. Hefferman .....	24 do ...	1 25	30 00
<b>Painter</b> .....	do .....	T. C. Tipton .....	22 do ...	1 50	33 00
do .....	do .....	Jas. Gamble.....	24 do ...	1 25	30 00
<b>Team</b> .....	do .....	M. A. Smith.....	12 do ...	3 00	36 00
do .....	do .....	R. G. Murdy .....	18 do ...	2 50	45 00
do .....	do .....	Thos. McDonald.....	2 do ...	2 50	5 00
<b>Laborer</b> .....	do .....	Jno. Henderson .....	18 do ...	1 25	22 50
do .....	do .....	A. Pettit.....	15 do ...	1 25	18 75
do .....	do .....	Robt. Grear.....	12 do ...	1 25	15 00
do .....	do .....	Thos. Aikens.....	12 do ...	1 25	15 00
do .....	do .....	John Coyle .....	6 do ...	1 25	7 50
do .....	do .....	Wm. Hamilton .....	6 do ...	1 25	7 50
<b>Team</b> .....	do .....	Chas. Henderson .....	4 do ...	2 50	10 00
<b>Watchman</b> .....	do .....	Geo. Wilson .....	26 do ...	1 50	39 00
do .....	do .....	Wm. Chelews .....	8 do ...	1 50	12 00
					4,138 46



## ACCOUNTS chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
July 1-31...	To Coy Bros., St. Catharines—		
	6 scythes, at 75c., \$4.50 ; 6 snaths, at 75c., \$4.50.....	9 00	
	1 doz. stones, \$1.20 ; 1 doz. C. shovels, \$14.....	15 20	
	$\frac{1}{2}$ doz. picks, \$6 ; $\frac{1}{2}$ doz. pick handles, \$1.50.....	7 50	
	3 ship augers, \$5.25 ; 1 gallon molasses, 30c.....	5 55	
	1 faucet, 60c. ; 1 wrench, \$1.....	1 60	
	500 lbs. axle grease, at 7c., \$35 ; 100 lbs. white lead, \$7.50	42 50	
	4 oval brushes, at \$1.25, \$5 ; 2 sash brushes, at 20c., 40c.....	5 40	
	1 painter's duster, 75c. ; 4 galls. turpentine, at 75c., \$3	3 75	
	1 gallon light dryer, \$1.10 ; 1 pkg. twine, \$1.25.....	2 35	
	1 doz. scythe stones, 60c ; 15 sheet line, at 10c., \$1.50...	2 10	
	1 paper clout nails, at 15c. ; 3 kegs 10 in. nails, \$3.50, \$10.50.....	10 65	
	2 kegs 12 in. nails, \$7 ; 1 keg 8 in. nails, \$3.75.....	10 75	
	1 keg 4 in. nails, \$4.25 ; 300 ft. barb wire, at 6 $\frac{1}{2}$ c., \$19.50	23 75	
	2 lbs. twine, \$1 ; 8 lbs. back staples, at 7c., 56c.....	1 56	
			141 66
July 1-31...	To James Wilson, Thorold—		
	6 brooms, at 30c., \$1.80 ; 24 scythe stones, at 10c., \$2.40..	4 20	
	$\frac{1}{2}$ doz. files, \$1.50 ; 28 lbs. oatmeal, \$1.....	2 50	
	1 wrench, \$1 ; 1 ship auger, \$1.50.....	2 50	
	3 loaves bread, 33c. ; 2 doz. eggs, 36c.....	0 69	
	17 ball Peen hammers, at 80c.....	13 60	
	1 keg 8 in. spikes 112 lbs., at 4 $\frac{1}{2}$ c.....	5 04	
			28 53
June 1-20...	To R. A. Abbey, Port Robinson—		
	14 lbs. oatmeal, 50c ; paid freight on 2 bales oakum, 35c.	0 85	
July 2-31...	3 scythes, at \$1, \$3 ; 6 scythe stones, 50c.....	3 50	
	1 snath, 75c. ; 21 lbs. oatmeal, 75c. ; 2 boxes axle grease, 30c.....	1 80	
	4 cans salmon, 80c. ; 2 lbs. cheese, 33c. ; 2 lbs. sugar, 20c. ; loaf bread, 6c.....	1 39	
	For carpenters working at Quaker Bridge.		7 54
July 1-31...	To Wm. N. Garden, Welland—		
	12 lbs. oatmeal, 50c. ; 1 broom, 25c. ; 1 scythe, \$1.....	1 75	
	1 scythe stone, 10c. ; 1 hand axe, \$1.38 ; paid for, 30c..	1 75	
			3 53
July 4-31...	To John Mathews, Port Colborne—		
	3 scythe stones, 30c. ; 1 padlock, 35c.....	0 65	
	3 lbs. manilla rope, 36c. ; 1 chisel handle, 8c.....	0 46	
	1 cringle, 10c. ; 2 doz. carriage bolts, \$1.....	1 10	
July 8-28...	1 jinnings bit.....	0 50	
	2 lbs. marine, 34c. ; 3 ship augers, \$3.30.....	3 64	
	100 lbs. spikes, \$4.50 ; 137 $\frac{1}{2}$ lbs. manilla rope, at 12c., \$16.50....	21 00	
July 2-29...	91 $\frac{1}{2}$ lbs. butter, \$1.50 ; 9 bunches onions, at 5c., 45c. ; 23 loaves bread, \$1.38.....	3 33	
	1 pair towels, 25c. ; 6 doz. eggs, at 15c., 90c. ; 46 $\frac{1}{2}$ lbs. meat, at 10c., \$4.65.....	5 80	
	2 $\frac{1}{2}$ bush. potatoes, \$2.20 ; 25 lbs. oatmeal, at 4c., \$1.....	3 20	
	1 box biscuits, 25c. ; 4 quarts cherries, at 6c., 24c. ; 1 oil can, 50c.....	0 99	
	1 gallon coal oil, 30c. ; 1 pkg. beans, 15c. ; onions, 44c.	0 89	
	5 $\frac{1}{2}$ lbs. butter, at 20c., \$1.10.....	1 10	
			42 66
January 3...	To George Lloyd, St. Catharines—		
May 6-30...	3 lbs. hemp packing, at 40c.....	1 20	
	1 $\frac{1}{2}$ elbow, at 10c. ; repairing galv. tank, 25c.....	0 35	
	Cutting thread on iron pipe, 30c. ; repairing oilers, 30c..	0 60	
	1 galvanized rose for feed pipe, 25c. ; repairing galvanized pail, 10c. ; 4 feet iron pipe, 25c.....	0 60	

ACCOUNTS chargeable to Welland Canal, Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
	To George Lloyd, St. Catharines—		
	Repairing oil cans, 10c.; 1 1½-inch tie, 25c.; 2 1½-inch bushings, 40c.....	0 75	
June 2-25...	1 set extra lever handles water gauge glasses.....	8 00	
	2 red gauge glasses, \$1; 2 red gauge glass washes, 10c.....	1 10	
	18 feet iron pipe, at 10c., \$1.80; 1 brass air lock, 90c.....	2 70	
	11 oz. flax packing, \$1.10; 1 ft. iron pipe, 5c.....	1 15	
	1 4-inch tie, 7c; bushing, 7c.; repairing oil can, 15c.....	0 29	
July 9...	1 brass oil can.....	0 15	
			16 89
April 9...	A. Muir & Bros., Port Dalhousie—1 16-foot oar.....		1 60
	A. McIndoe, Thorold—		
July 6...	Repairing 1 double block, 1 patent sheave, 6 in. by 14....	1 50	
do 20...	do 1 do 2 3½ do 1½....	0 75	
	Making 2 handles for large rakes.....	0 75	
			3 00
do 6...	J. & J. Taylor, Toronto—		
	2 set vault doors, as per order, for collector, Canal Tolls Office, Port Colborne.....	130 00	
	Packing.....	2 00	
			132 00
	C. P. Mills, St. Catharines—		
May 20...	Repairing lawn mower, sharpening and setting.....	1 00	
	2 new cogs, 50c.; 2 pawls, 30c.; 2 springs, 20c.....	1 00	
			2 00
	J. & R. Miller, Agts. for J. S. Mindar, Port Dalhousie—		
July 1...	1 8 by 13 single cylinder patent friction drum hoisting engine, with winch and 38-foot boiler and fixtures complete, F.O.B.....	900 00	
	Freight on same.....	23 40	
			923 40
	James Wilson, Merritton—		
do 1-31...	2,704 lbs. castings, at 3½c.....	94 64	
	137 do brasses, at 30c.....	41 10	
	160 hrs. fitting and drilling, at 40c.....	64 00	
			199 74
	James Wilson, Merritton—		
do 1-31...	93 lbs. rods repaired, at 1½c.....	1 40	
	308 do plates do at 2c.....	6 16	
	4,771 do S. bolts do at 2½c.....	119 27	
	6,971 do do new, at 5c.....	348 55	
	37¾ do new steel, at 20c.....	7 55	
	983 do do plates, at 4c.....	39 32	
	22 steel-pointed boat hooks, at 40c.....	8 80	
	Splicing 2 augers.....	1 00	
	Setting cart wheels, 4.....	4 00	
			536 05
	McCleary & McLean, Thorold—		
June 1-30...	44,153 ft. pine, at \$16, \$706.45; 11,776 ft. pine, at \$17, \$200.19.....	906 64	
	10,000 ft. pine, at \$17.50, \$175; 1,274 ft. pine, at \$25, \$31.85.....	206 85	
	184 do \$30, \$5.52; 100 ft., at 35c, \$3.50.....	9 02	
	11,600 ft. oak, at \$27, \$313.20; 521 ft. oak, at \$25, \$13.02.....	326 22	
July 1-31...	36 wedges, at 4c.....	1 44	
	9,645 ft. pine, at \$16, \$154.32; 3,889 ft. pine, at \$17, \$66.11.....	220 43	
	8,000 do \$20, \$160; 1,950 do \$35, \$68.25.....	228 25	
	3,277 ft oak, at \$25, \$81.92; 1,920 ft. oak, at \$27, \$51.84.....	50 70	
	26½ ft. 1½-inch blinds, at 5c.....	9 19	
	50 ft. moulding, at 3c., \$1.50; 1,280 ft. piling, at 15c., \$192.....	193 50	
			2,286 00

ACCOUNTS chargeable to Welland Canal, Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.	Robert Foster, St. Catharines—	\$ cts.	\$ cts.
July 16-31...	14 days horse and waggon for W. Chatfield, in charge of iron and steel bridges.....	35 00	
do 1-31...	16 days horse and buggy, for Superintendent, at \$2.50...	40 00	
	3 do do do 1.50...	4 50	79 50
do 1-31...	H. Vanderburgh, Allanburgh—21 railway fares to Port Dalhousie and return, at 70c.....		14 70
do 22...	Mrs. Jordan, Port Robinson—		
	3 meals and horse feed.....	1 25	
do 25-27...	3 days and horse feed 4 nights.....	4 75	
do 26...	12 men 1 day each, at 75c., \$9; hay and oats, team, \$1..	10 00	16 00
May 2-26...	Charles Loesch, Welland—		
June 1-30...	14 meals, \$3.50; horse feed, 50c.....	4 00	
July 1-31...	4 do \$1; team—hay and oats, \$2.20.....	3 20	
	20 do \$5; do do \$2.55.....	7 55	14 75
May 17 to June 29...	F. T. Walton, foreman, Thorold—		
	7 railway fares, Merritton to Port Colborne, at \$1.....	7 00	
	2 do St. Catharines do \$1.10.....	2 20	
	13 do Thorold do 95c.....	12 35	
	2 do do do.....	0 30	
	1 do Welland to Port Robinson.....	0 15	
	1 do Port Colborne to Welland.....	0 25	
	1 do Thorold to Port Colborne and Welland..	0 80	
	Freight on augers.....	0 35	
	1 railway fare, Thorold to Welland, and Maitland to Welland.....	0 70	
	3 do do at 40c.....	1 20	52 30
July 1-31...	Thomas Hastings, contractor, St. Catharines—		
	12 cut stone column blocks, delivered at Port Dalhousie, 22 x 22 x 12, at \$5.....	60 00	
	1 day mason setting same.....	3 50	
	1 do \$3.50; 1 day labor, \$1.50, bedding sills for stone house.....	5 00	
	2 brls. lime, \$1.80; horse and waggon, ½ day, \$1.25.....	3 05	
	Plastering Lock 19 house, Old Canal—		
	4 brls. mortar, \$3.60; 1 brl. putty, \$1; 50 lbs. plaster, \$1.....	5 60	
	1 brl. cement.....	1 50	
	2½ days mason, at \$3.50, \$8.75; 2 days labor, at \$1.50, \$3.....	11 75	
	1 day horse and waggon.....	2 50	92 90
do 8-30...	Grand Trunk Railway Co., Port Colborne—		
	Freight, as per original account and vouchers attached..		3 94
do 30...	Dickinson & Sness, Humberstone—		
	Advance on account of construction of Canal, Toll Collector's and Custom House at Port Colborne, as per agreements.....		1,500 00
	I certify that sufficient work and material have been completed and delivered to entitle the above firm to the amount of the above account.		
<i>Old Welland Canal and Feeder.</i>			
July 2-30...	To James Wilson, Thorold—		
	2 padlocks at 40c., 80c.; 20 lbs. chain at 8c., \$1.60.....	2 40	
	32 lbs. manilla rope at 14c., \$4.48; 20 lbs. heaving line at 14c., \$2.80.....	7 28	
	1 padlock at 50c; 2 ship augers, \$2.50.....	3 00	
	896 lbs wrought spike at 4½c.....	40 32	53 00



ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
July 1-27...	James Rolston, Dunnville—		
	1 gross screws $\frac{3}{8}$ , 20c.; 6 glass 8x10, 24c.; 1 glass 10x12, 6c.	0 50	
	3 lbs. putty at 5c., 15c.; 59 lbs. wrought spikes at 5c., \$7.95; 2 glass 24x36, 88c.....	8 98	
	1 file, 20c.; 1 scythe, \$1.25; 1 stone, 10c.; 6 8in files, \$1.20; $\frac{1}{2}$ doz. bolts, 15c.....	2 90	
	Gimlet bits, 15c.; $\frac{1}{4}$ ship augers, 13x16, \$3.75; 1 padlock, 25c.....	4 15	
	Hasp, 10c.; hinges, 15c.; nails, 5c.; 1 axe handle, 20c.; 43 Boston line, \$6.45.....	6 95	
	1 keg steel spikes, \$3; 1 $\frac{1}{4}$ 30c.; 1 framing saw, \$2	5 30	
	2 axe handles, 40c.; 27 $\frac{1}{2}$ lbs. putty at 4c, \$1.30; 1 bottle oil, 25c.; 3 files, 30c.....	2 05	
	1 5 in. warding file, 15c.; 1 gal. seal oil, \$1; 1 coil b. wire, 10c.....	1 25	
	Pump suckers, 60c.; pump packing, 10c.; 2 clay picks, \$2	2 70	
	2 pick helves, 50c.; 2 shovels, \$2; 1 file, 15c.; 1 double shovel, \$1.....	3 65	
			38 43
do 1-31...	Condon & Hall, Dunnville—		
	1 $\frac{1}{2}$ lbs. ultra-marine blue, 38c.; $\frac{1}{2}$ gal. turpentine, 40c.; 1 doz. pull hooks, 30c.....	1 08	
	15 lbs. steel nails, 53c.; matchsafe and brackets, 86c.....	1 39	
	109 lbs. manilla rope, at 12c., \$20.28; 7 $\frac{1}{4}$ lbs. marline, 43c.; 2 augers, \$1.....	22 71	
	1 ship axe, \$1.75; 1 ship axe, \$2.50; 142 $\frac{3}{4}$ lbs. wrought spikes, \$6.42.....	10 67	
	Whitening and glue, \$1.55; 1 hammer, \$1; 142 lbs. pitch, \$4.25; twine, 25c.....	7 05	
			42 90
do 1-31...	W. Swartz, Dunnville—		
	112 lbs. T bolts, dogs and hooks, at 7c.....	7 84	
	4 cant hooks, at 50c., \$2; 8 boat hooks, rings and keys, at 35c., \$2.80.....	4 80	
	8 cranks on auger, at 50c., \$4; 4 eyes on augers, at 20c., 80c.....	4 80	
	11 links in chain, at 10c., \$1.10; 6 links in chain, at 5c., 30c.	1 40	
	2 and plates, at 75c., \$1.50; 12 lbs. spike drawers, at 4c., 48c.....	1 98	
	25 tongs repaired, at 3c., 75c.; 1 sledge faced, 25c.....	1 00	
	Sharpening 2 picks, 10c.; 20 bands made, at 2c., 40c.....	50	
	4 dogs for pile driver repaired, at 50c.....	2 00	
			24 32
June 1-30...	James Wilson, Merritton—		
	89 rods repaired, at 1c., 89c.; 427 levers repaired, \$8.54..	9 43	
	1,680 screw bolts repaired, at 2 $\frac{1}{2}$ c., \$42; 28 rag bolts, at 3c., 84c.....	42 84	
	203 drills and picks pointed at 4c.....	8 12	
	467 lbs. plates and bands, at 4c., \$18.68; 2,074 screw bolts, at 5c., \$103.70 ..	122 38	
	120 lbs. steeling, at 6c., \$7.20; 7 brasses, at 30c., \$2.10.	9 30	
	3 augers shanked, at 50c., \$1.50; 76 hours time, at 40c. \$30.40.....	31 90	
July 1-31...	209 rods repaired, at 1 $\frac{1}{2}$ , \$3.14; 646 lbs. plates repaired and straightened, at 2c., \$12.92.....	16 06	
	481 screw bolts repaired, at 2 $\frac{1}{2}$ c., \$12.02; 247 rag bolts, at 3c., \$7.41.....	19 43	
	306 lbs. new plates, at 4c., \$12.24; 2,036 lbs new screw bolts, at 5c., \$101.80.....	114 04	
	104 lbs. steeling, at 6c., \$6.24; 51 lbs. new steel, at 20c., \$10.20.....	16 44	
	Splicing auger .....	0 50	
			390 44

ACCOUNTS chargeable to Welland Canal—Repairs—*Continued*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
July 1-31...	James Wilson, Merritton— 351 lbs. castings, at 3½c., \$12 29; 105 hours drilling, boring, etc., 40c., \$42 .....	54 29 116 00	170 29
do 2-31...	John Bradley, Merritton— Selecting stone from spoil banks near Humberstone; breaking and loading same on scow; and unlading and trimming along banks of feeder where banks washed out, 1,694 yards, at \$1.10 .....	1,863 40	
	Cr. By hire of scow "Sir Charles," 3 mos., at \$60.....	180 00	1,683 40
do 30...	F. Lathmore, Dunnville—100 tamarac poles, at 5c. ....		5 00
do 1-31...	McUleary & McLean, Thorold— 2,180 feet pine, at \$13.50 per M, \$29.43; 1,748 feet pine, at \$16 per M, \$27.97.....	57 00	
	281 feet pine, at \$17.50 per M, \$4.92; 200 feet pine, at \$25 per M, \$5.37 .....	10 29	
	5,307 feet oak, at \$25 per M, \$132.68; 2,400 feet oak, at \$27, \$60.80.....	197 48	
	650 feet elm, at \$17 per M.....	11 05	276 22
May 2 }	Chas. Henderson, Marshville—44 meals, at 25c., \$11; horse feed, \$6.50.....		17 50
July 13 }	(Above for men and team cutting, &c., along Feeder Canal.)		
do 6-8...	William Martin, Port Maitland—32 meals, at 25c.....		8 00
	(Above for men away from home removing logs out of Canal channel.)		8,781 19

PAY-LIST in duplicate of Persons employed on the Dunnville Division of the Welland Canal during the month of August, 1887, to Repair the West Pier at Port Maitland, chargeable to Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Foreman on pier .....	Aug., 1887	Jas. Edgar.....	26 days...	2 00	52 00
Carpenters framing cross ties and 12 x 12 side timber and laying same in work. ....	do	R. M. Mitchell.....	26 do	1 50	39 00
do do .....	do	Nelson Banks.....	18 do	1 50	27 00
do do .....	do	John Taylor.....	26 do	1 50	39 00
do do .....	do	Robert Cline.....	26 do	1 50	39 00
do do .....	do	Stephen Wilds.....	27 do	1 50	40 50
Boring and bolting down new timber, &c.....	do	J. Mathews.....	3 do	1 50	4 50
do do .....	do	David Cooper.....	7 do	1 50	10 50
do do .....	do	John McKee.....	6 do	1 50	9 00
Foreman on stone scow.....	do	John Thrush.....	3 do	1 50	4 50
Laborers loading scow with stone at Port Colborne and unloading at Port Maitland. ....	do	A. McDonald.....	3 do	1 00	3 00
do do .....	do	Thos. Bessey.....	3 do	1 00	3 00
do do .....	do	Robt. Runchey.....	3 do	1 00	3 00
do do .....	do	Jas. Heiffern.....	3 do	1 00	3 00
do do .....	do	Joel Smith.....	3 do	1 00	3 00
Horse towing scow.....	do	A. Galbraith.....	3 do	1 50	4 50
Team assisting.....	do	Robt. Montague.....	2 do	3 00	6 00
Stone leveller.....	do	Jas. Vanderburg.....	15½ do	1 25	19 06
do .....	do	Albert Nelson.....	9¾ do	1 25	12 18
					321 74

NUMBER of Pay-list, 183. Pay-list in duplicate of Persons employed on the Welland Canal during the month of August, 1887, for building stone shed, Port Dalhousie; repairing break, Lock 19; repairing barks, cleaning out and opening ditches; repairing breakwater, Port Colborne; securing stone for tug, docks, &c.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	Aug., 1887	H. Vanderburgh.....	1 month..	75 00	75 00
do .....	do	Wm. M. Jones.....	28½ days...	2 00	57 00
do .....	do	Jas. Hindson.....	29 do ...	2 00	58 00
do .....	do	Wm. Tinlin.....	27½ do ..	2 00	55 00
do .....	do	Alf. Coons.....	26 do ...	2 00	52 00
do .....	do	Wm. Patterson.....	28 do ...	2 00	56 00
Handy man.....	do	John Doig.....	26½ do ...	1 75	46 38
do .....	do	Robt. Johnston.....	25 do ...	1 75	43 75
Laborer .....	do	R. Houston.....	27 do ...	1 50	40 50
do .....	do	Geo. Irvin.....	26 do ...	1 50	39 00
Painter .....	do	A. Impey.....	25½ do ...	2 00	57 50
Teams (2).....	do	Jas. Johnston.....	32½ do ...	3 50	113 75
Watchman.....	do	Oscar Sharp.....	31 do ...	1 50	46 50
do .....	do	John McMillan.....	31 do ...	1 20	37 20
<i>Division No. 1.</i>					
Laborer .....	Aug., 1887	J. Reynard (foreman)	27½ days...	2 00	55 00
do .....	do	Thos. Kelly.....	11 do ...	1 50	16 50
do .....	do	Jos. Andrews.....	27½ do ...	1 50	41 25
do .....	do	Geo. Shultis.....	19½ do ...	1 50	29 25
do .....	do	Cobe. Longley .....	18½ do ...	1 50	27 75
do .....	do	Thos. Hayden.....	28½ do ...	1 50	42 75
do .....	do	Edward Crosby .....	16½ do ...	1 50	24 75
do .....	do	C. Cushman.....	22½ do ...	1 50	33 75
do .....	do	George Julian.....	27 do ...	1 50	40 50
<i>Division No. 2.</i>					
Laborer .....	do	J. H. Booth.....	26 do ...	1 50	39 00
do .....	do	R. Preston .....	14 do ...	1 50	21 00
do .....	do	H. Dell.....	18 do ...	1 50	27 00
do .....	do	M. Nestor.....	18 do ...	1 50	27 00
do .....	do	F. Donahue .....	28 do ...	1 50	42 00
do .....	do	Thos. Donahue .....	11 do ...	1 50	16 50
do .....	do	Sam. Frazer, jun.....	3 do ...	1 50	4 50
do .....	do	Joseph Reuter.....	5 do ...	1 50	7 50
<i>Division No. 3.</i>					
Laborer .....	do	G. A. Jordon.....	26 do ...	2 00	52 00
do .....	do	James Hansell.....	26½ do ...	1 50	39 75
do .....	do	John Madigan.....	26½ do ...	1 50	39 75
do .....	do	Geo. Brown.....	26½ do ...	1 50	39 75
do .....	do	Ben. Redfern.....	26½ do ...	1 50	38 25
Team.....	do	John Watson.....	13 do ...	3 50	45 50
Mason.....	do	Wm. Chandler.....	23 do ...	1 75	40 25
<i>Divisions Nos. 3 and 4.</i>					
Laborer .....	do	J. Clancey (foreman)	27 do ...	2 00	54 00
do .....	do	Hugh Bailey.....	27 do ...	1 50	40 50
do .....	do	Michael Blake.....	27 do ...	1 50	40 50
do .....	do	Wm. Pew.....	27 do ...	1 50	40 50
do .....	do	P. Patterson.....	7 do ...	1 50	10 50
Watchman.....	do	John Hanley .....	27 do ...	1 00	27 00
do .....	do	Wm. Chelen.....	10 do ...	1 50	15 00



## PAY-LIST in duplicate of persons employed on the Welland Canal, &amp;c.—Continued.

Capacity.	When Employed	Names.	Time.	Date.	Amount.
<i>Division No. 4.</i>				\$ cts.	\$ cts.
Laborer .....	Aug., 1887	W. Cooke (foreman)...	27 do ...	2 00	54 00
do .....	do	J. Cooke.....	27 do ...	1 50	40 50
do .....	do	W. Decks.....	27 do ...	1 50	40 50
do .....	do	C. Keen.....	27 do ...	1 50	40 50
do .....	do	J. Hardeson.....	26½ do ...	1 50	39 75
do .....	do	J. Leslie.....	27 do ...	1 50	40 50
do .....	do	J. Moyer.....	10 do ...	1 50	15 00
do .....	do	J. Mahagan.....	8¾ do ...	1 50	13 13
do .....	do	M. Anthes.....	8½ do ...	1 50	12 75
do .....	do	C. Smith.....	1 do ...	1 00	1 00
Team .....	do	Sam. Cook.....	13½ do ...	3 50	47 25
<i>Old Welland Canal and Feeder.</i>					
Carpenter.....	do	H. Morey, foreman...	27 days...	2 75	74 25
do .....	do	P. Shortell.....	24 do ...	2 00	48 00
do .....	do	S. Radcliffe.....	26 do ...	2 00	52 00
do .....	do	T. Rapsey.....	26 do ...	2 00	52 00
Team.....	do	Chas. Hill.....	26 do ...	3 50	91 00
Watchman.....	do	J. W. Boyle.....	31 do ...	1 00	31 00
Laborer.....	do	Thos. O'Neil, foreman	31 do ...	2 00	62 00
do .....	do	Robt. Wilson.....	25½ do ...	1 50	38 25
do .....	do	Jno. Henphill.....	28½ do ...	1 50	42 75
do .....	do	Rich. Grant.....	31 do ...	1 00	31 00
do .....	do	Arthur Bradley.....	25 do ...	1 50	37 50
do .....	do	Pat. Griffin.....	25 do ...	1 50	37 50
do .....	do	Wm. Clarke.....	1 do ...	1 50	1 50
Water boy.....	do	P. Morgan.....	4 do ...	0 75	3 00
Carpenter.....	do	F. T. Walton, forem'n	27 do ...	2 75	74 25
do .....	do	S. R. Bradley.....	27 do ...	2 00	54 00
do .....	do	D. S. Walton.....	27 do ...	2 00	54 00
do .....	do	Ed. Smith.....	27 do ...	2 00	54 00
do .....	do	Wm. Dunn.....	27 do ...	2 00	54 00
do .....	do	S. J. Hill.....	27 do ...	2 00	54 00
Horse and waggon.....	do	F. F. Walton.....	27 do ...	1 50	40 50
Team.....	do	John Coyle.....	13½ do ...	3 50	47 25
do .....	do	James Wilson.....	1 do ...	3 50	3 50
Quarryman.....	do	Jas. Hamilton, fore'n.	27 do ...	2 00	54 00
do .....	do	A. Bradley.....	23 do ...	1 50	34 50
do .....	do	Jas. Faywell.....	25½ do ...	1 50	38 25
do .....	do	Abr. Bradley.....	24 do ...	1 50	36 00
do .....	do	Jerry Langhey.....	24½ do ...	1 50	36 75
do .....	do	John Dundas.....	24½ do ...	1 50	36 00
do .....	do	John Brennan.....	26 do ...	1 50	39 00
do .....	do	Geo. Wilson.....	26 do ...	1 50	39 00
Team.....	do	C. Tenbrook.....	25½ do ...	3 50	89 25
<i>Feeder Division.</i>					
Carpenter.....	do	E. Blott.....	25½ do ...	1 50	38 25
do .....	do	M. Green.....	24½ do ...	1 50	36 75
do .....	do	Ira Bessey.....	22½ do ...	1 50	33 75
do .....	do	F. Fritz.....	5½ do ...	1 50	8 25
Helper.....	do	Jas. Blott.....	14 do ...	1 25	17 50
Team.....	do	M. A. Smith.....	6¾ do ...	3 00	20 25
Laborer.....	do	James Gamble.....	16 do ...	1 25	20 00
do .....	do	Edward Webber.....	24 do ...	1 25	30 00
do .....	do	James Davis.....	24 do ...	1 25	30 00
do .....	do	R. G. Murdy.....	22 do ...	2 50	55 00

PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Feeder Division.</i>				\$ cts.	\$ cts.
Scowmen.....	do ...	John Thrush, forem'n	23 do ...	1 50	34 50
do .....	do ...	Thos. Bessey.....	23 do ...	1 00	23 00
do .....	do ...	Jas. Hefferman.....	23½ do ...	1 00	23 50
do .....	do ...	Robert Runchy.....	23 do ...	1 00	23 00
do .....	do ...	A. McDonald.....	23 do ...	1 00	23 00
do .....	do ...	Jas. Smith.....	18 do ...	1 00	18 00
Horse towing .....	do ...	M A. Smith.....	18 do ...	1 50	27 00
Team.....	do ...	R. Montague.....	6 do ...	3 00	18 00
do .....	do ...	Thos. McDonald.....	2 do ...	2 50	5 00
					4,061 21

## ACCOUNTS chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Aug. 1-3...	To Coy Bros., St. Catharines— 279 lbs. putty, at 4c., \$11.16; 13 set bd. hinges, at 25c., \$3.25.....	14 41	
	6 gross screws \$2.30; 11 lbs. brimstone, at 5c., 55c.....	2 85	
	5 washers, at 15c., 75c.; 32 in. band iron, at 4c., \$1.28....	2 03	
	4 brls. Portland cement, at \$5.....	20 00	
	400 lbs. white lead, at 7c. \$28; 5 lbs. French green, at 25c., \$1.25.....	29 25	
	1 lb. drop black 25c.; 1 lb. ultra-marine blue, 35c.....	0 60	
	2 pr. B. D. rollers, \$1.50; 20 car bolts, 60c.....	2 10	
	2 post hole augers, \$6.50; 1 doz. 10 inch M.S. files, \$3.25	9 75	
	5 galls. black japan, at \$1.10, \$5.50; 112 lbs. spike, at 5c., \$5 60 .....	11 10	
	20 ft. sheet line, at 10c. \$2; 1 paper nails, 25c.....	2 25	
	7 ship augers, at \$1.50, \$10.50; 6 ship augers, at \$2, \$12.	22 50	
	1 do \$2 25; 6 ship augers, at \$1.40, \$8.40.....	10 65	
	4 do \$1.25 .....	5 00	
	6 steel crowbars, 94 ft., at 7c.....	6 58	
	4 screw wrenches, 2 at 45c, 2 at \$2.20.....	6 75	
	1 sledge hammer, 16 lbs., at 20c.....	3 20	
	1 washer culler, \$1; 7 boxes glass 8 x 10, at \$2, \$14.....	15 00	
			164 02
do 1-31...	James Wilson, Thorold— 7 los. oatmeal.....	0 25	
	920 lbs. spike, at 5c. \$46; 112 lbs. chain, at 7c \$7.84....	53 84	
	4 lbs. rivets, 20c.; 2 large line pails, at 50c., \$1.....	1 20	
	2 med. line pails, at 45c., 90c.; 88 lbs. spike, at 4½c., \$3.46	4 86	
			60 15
do 1-31...	Henry Mussen, Allanburgh— Repairing clock, \$1; 1 iron pail, 35c.....	1 35	
	196 lbs nails, at 4c., \$7.84; 25 lbs. shingle nails, at 5c., \$1 25 .....	9 09	
	3 lbs. brimstone, 30c.; 3 files, 34c.; 4 pr. hinges, 80c.....	1 44	
	3 doz. screws, 15c.; 5 lbs. lath nails, at 6c., 30c.; 10 lbs. lath nails, 60c .....	1 05	
	2 locks and knobs and screws, complete, \$1; sand paper, 2c.....	1 02	
			13 95

ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.	John Mathews, Port Colborne—		
Aug. 1-31...	1 set grindstone fixtures.....	0 60	
	2 doz. large car bolts, \$1; 1 flat file, 37c.....	1 37	
	1 axe handle, 30c.; 2 doz. cart bolts, 70c.; 1 padlock, 35c.	1 35	
	1 lb. black paint, 15c; 1 pick, \$1.13; 2 sledge hammers, 35c.....	1 78	
	10 lbs. oatmeal, 40c; ½ gal. lard oil, 50c.....	0 90	
			6 00
April 4-30...	Chatfield & Neelon, St. Catharines—		
	1 ½-inch cap, 7c.; 1 ½-gal. oil can, 25c; 1 ½-inch cap, 7c	0 39	
	9 ft. 1-inch pipe, 60c.; 6 1-inch clips, 15c.; 31 ft. 1-inch pipe, \$3.10 .....	4 15	
	1 1-inch S. & W. cock, \$2.50; 3 1-inch sockets, 30c.....	2 80	
	1 copper suction strainer, \$1.25; 2 18-inch gal. flanges, \$2.....	3 25	
	1 extension stop cock box, \$2: 3 hours man cutting pipes, 75c.....	2 75	
June 28...	48 ft. ¾-inch pipe at 8c., \$3.84; 16 ¾x4½ tees, \$1.60.....	5 44	
	4 ¾-inch nipples, \$1; 4 ¾-inch plugs, 40c.; 4 ¾-inch nipples, 32c.....	1 72	
	4 1-inch nipples 40c.; 4 1½-inch tees, 48c.; 4 1-inch globe valves, \$4 .....	4 88	
	4 1-inch B couplings, \$2; 8 pr. ¾-inch hose couplings, \$2.	4 00	
	16 hose clips, 67c.; 16 wrought iron legs, \$9.60; 400 ft. ¾-inch rubber hose, \$56. ....	66 27	
	8 hours' time man and helper cutting and fitting pipes ...	3 20	
			98 85
May 4...	James Thompson, Thorold—		
Aug. 8-31...	Iron pipe, \$1 30; coupling, 15c.; threader, 35c.....	1 80	
	1 new top galvanized pump and repairing suckers.....	2 00	
	Repairing lamp, 25c.; 2 large galvanized pumps, \$8.....	8 25	
	70¾ inches 14-inch tin at 10c., \$7.07; 3½ ft. 1½-inch pipe at 14c., 49c.....	7 56	
	Repairing pumps and suckers.....	1 50	
	Repairing 3 pumps.....	4 50	
			25 61
Jan. 1-28...	S. Burrows, Port Colborne—		
	Repairing dipper, 10c.; 1 galvanized pump for scow, \$3.	3 10	
July 1-30...	2 bolts.....	0 10	
	1 valve, 60c.; repairing pump, 50c.; repairing lamp, 40c.; repairing pump, 75c.....	2 25	
Aug. 1-31...	18 ft. 1½ inch pipe, \$3.96; 2 couplings, 40c.....	4 36	
	207 inches pipe, canal toll collector's office, at 12½c .....	25 87	
	Time altering pipes .....	1 00	
			36 68
June 8...	Charles Chapman, St. Catharines—		
	Painting residence of W.W.Wait, storekeeper, as follows:		
	Painting plaster work, at 3c.....	50 00	
	do wood do at 2c.....	50 00	
	Hanging 68 rolls wall paper, at 12½c.....	8 50	
	Bordering 3 rooms and 2 halls, at 25c.....	1 25	
			109 75
Aug. 26...	To A. McIndoe, Thorold—2 6-inch sheaves, 5 inches by ¾th inch for each block .....		1 00
do 1-31...	James Wilson, Merriton—		
	3,201 lbs. castings at 3½c, \$112.24; 93 lbs. brass nuts at 30c., \$27.90.....	140 14	
	22 steel set screws, at 15c., \$3 30; 290 lbs. phosphor bronze at 45c., \$130.50.....	133 80	
	291 hours drilling and fitting, at 40c.....	116 40	
			390 34



ACCOUNTS chargeable to Welland Canal, Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Aug. 1-31...	To James Wilson, Merriton— 781 lbs. plates repaired, \$15.62; 2,236 lbs. T bolts, at 2½c., \$55.90 .....	71 52	
	100 lbs. rag spikes at 3c., \$3; 3,177 lbs. plates and bands at 4c., \$127.08 .....	130 08	
	2,710 lbs. screw bolts at 5c., \$135 50; 6 lbs. Low Moor iron, 60c. ....	136 10	
	47½ lbs. new steel, at 20c. ....	9 50	
			347 20
do 1-31...	McClary & McLean, Thorold— 1,132 ft. pine at \$16, \$18.11; 1,975 ft. pine, at \$17.50, \$34.56 .....	52 67	
	81 ft. pine at \$18, \$1.46; 333 ft. pine at \$20, \$6.66 .....	8 12	
	1,830 ft. pine at \$35 .....	64 05	
	18,800 ft. oak at \$25, \$170; 7,137 ft. oak at \$27, \$192.70 ..	661 70	
	36 windows at 90c. ....	32 40	
			819 94
do 31...	Chase & Bros., Port Colborne— 1 stick rock elm (lock feeder) .....	3 50	
	2 pine braces, \$3; 1 pine boom, \$2.50 .....	5 50	
	Time—sawing and hewing .....	2 00	
			11 00
do 8-9...	John Battle, Thorold— 26 brls. cement, at \$1.50 .....	39 00	
	12 yds. broken stone, at \$1.75 .....	21 00	
			60 00
May 19-26...	J. H. Stanley, Port Colborne— 12 rolls wall paper, \$1.50; 12 rolls wall paper at 16c., \$1.92 .....	3 42	
	15 rolls wall paper, at 12c. ....	1 80	
			5 22
Aug. 29...	Stebbens Andrews, Port Dalhousie— 15½ cords stone delivered and used in repairing race way wash .....	77 50	
	90 cubic feet excavating for same .....	22 50	
			100 00
do 7...	J. S. Rogers, Thorold—Horse and buggy to St Catharines .....		1 50
do 10...	D. W. McCain, Port Colborne—1,350 brick, at \$7 per M. ....		9 45
do 4-29...	R. Foster, St. Catharines— Horse and buggy, 7 days, at \$2.50 .....	17 50	
	do 5 do \$1.50 .....	7 50	
	do ½ day .....	1 00	
	(Above for Wm. Ellis, Superintendent.)		
do 1-31...	Horse and waggon, 27 days, at \$2 50 .....	67 50	
	(Above for Mr. Chatfield, Inspector of bridges.)		93 50
do 18...	Thomas Myles & Son, Hamilton—19 days' use of boat for ferry, at 50c. ....		9 50
do 1-31...	H. Vanderburgh, Allanburgh—25 trips and return from Allanburgh to Port Dalhousie, at 70c. ....		17 50
do ...	Mrs. Jordan, Port Robinson—19 days' board for mason from St. Catharines .....		14 25
do 7-10...	F. H. Becker, Thorold— 206 meals, at 25c., \$51.50; 12 beds, \$3; horse and waggon, \$1 .....	55 50	
	24 meals, diver and men, \$6; 8 feeds for team, \$4 .....	10 00	
			65 50
do 1-31...	J. G. Demare, Port Dalhousie— Paid charges on diver's pump .....	1 60	
	2 railway fares and return, Humberstone, \$2.40; return fare, Port Colborne, \$2.50 .....	4 90	
	Paid for lock tenders .....	4 00	
			10 50

## ACCOUNTS Chargeable to Welland Canal, Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
	Richard House, St. Catharines—		
May 18...	1 turpentine can.....	0 45	
June 1-31...	1 galvanized smoke stack, \$3.50; repairing hydrant, 95c.	3 75	
	2 funnels, 30c.; 5 hours' time 2 men at canal office, \$2.50	2 80	
	2 cord hooks, 30c.; 4 pieces galvanized iron, 50c.; solder, &c., 25c.....	1 05	
	1 nipple, 7c.; 1 pair lock nuts, 10c.; 1 hour's time for man, 30c.....	0 47	
	Repairing plunger for pump.....	0 20	
July 4-31...	Repairing galvanized pump, 50c.; 14 ft. 3 in. conductor, \$1.40; 3 elbows, 45c.....	2 35	
	1 galvanized elbow, 25c.; 1 sheet tin, 10c.; 1½ day's labor, \$3.....	3 35	
	Galvanized iron, 30c.; 1 hour's labor, 25c.; cleaning chimney and repairing tap, 80c.....	1 35	
	16½ ft. ¾ in. iron pipe, at 10c. \$1.67; 2¾ in. sockets, 10c...	1 77	
Aug. 1-31	¾ gal. measure, 50c.; ¼ gal. measure, 35c.; 1 funnel, 20c.	1 05	
	1 angle elbow, 25c.; 4½ hours' labor for 2, \$1.69.....	1 94	
	1 2 in. iron stop cock, \$2.25; 3 sockets, 75c.; 1 shut-off key, \$2.....	5 00	
	28 in. 1½ in. iron pipe syphon, at 20c., \$5.60; 1 tee, 25c.; 1 socket, 20c.....	6 05	
	2 plugs, 40c.; 1 iron cock, \$1.85; 1½ hour's labor for 2, 60c.; 1 elbow, 25c.....	3 10	
	1 ft. 1½ in. pipe, 20c.; 1 socket, 20c.; 1 hour's labor, 25c.	0 65	
	Bottom in 5 gal. can.....	0 25	
	45 squares metallic roofing, at \$4.35.....	195 75	
	118 lbs. ridge roll, at 10c., \$11.80; 10 lbs. binding twine, at 15c., \$1.50.....	13 30	
	2 gals. paint, at \$1.35, \$2.70; 1 keg wire nails, \$8.....	10 70	
	67 squares metallic siding, \$3.75.....	213 75	
	288 feet galvanized trough, at 25c., \$57; 4 connect pipes, at 25c., \$1.....	58 00	
	12 elbows, at 30c., \$3.60; 76 feet galvanized conductor, at 25c., \$19.....	22 60	
	316 lbs. galvanized corner covering, at 10c.....	31 60	
	Labor fitting on 102 squares metallic roofing and siding, at 50c.....	51 00	
			632 28
	Old Welland Canal and Feeder.		
	Coy Bros., St. Catharines—		
July 1-31...	8 scythe stones, at 10c., 80c.; 3 scythes, \$3; 2 scythes, 1 50.....	5 30	
	2 snaths, \$1.25; 2 snaths, \$1.50; 6 staples, at 7c., 42c...	3 17	
	3 gals. boiled oil, at 80c., \$2.40; 97 lbs. cut nails, at 4c , \$3.88.....	6 28	
	10 lb. shingle nails, 50c.; 3 gals. lard oil, \$3.....	3 50	
	1 latch, 15c.; 1 bolt, 15c.; 100 lbs. genuine white lead, \$7.50.....	7 80	
Aug. 1-31...	3 gals. lard oil, \$3; 3 gals. black oil, at 30c., 90c.....	3 90	
	100 lbs. spikes, \$5; 2 kegs blasting powder, \$8.....	13 00	
	30 lbs. cut nails, \$1.20; 1 padlock, 25c.....	1 45	
	400 ft. double tape fuse.....	8 00	
			52 40
	James Wilson, Thorold—		
do 1-31...	4 gals. lard oil, at \$1, \$4; 1 oil can, 60c.....	4 60	
	2 gals. coal oil, 50c.; 1 lantern, \$1; 1 brick, 5c.; 3 washers, 30c.....	1 85	
	5 lbs. nails, 17c.; 1 auger bit, 30c.; 210 lbs. spikes, at 4c., \$9.45.....	9 92	
	6 bolts, 24c.; 6 lbs. strap hinges, at 8c., 48c.; ¼ lb. washers, 5c.....	0 77	

## ACCOUNTS chargeable to Welland Canal, Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Aug. 1-31...	To James Wilson, Thorold—		
	200 lbs. 6 in. spikes, at 5c. \$10; 1 gross screws, 30c.; ½ doz. files, 60c.....	10 90	
	200 lbs. cut nails, at 3½c., \$7; 24 wood screws, at 6c., \$1.44.....	8 44	
	12 doz. screws, at 5c., 60c.; 4 lbs. nails, 14c.; ½ lb. washers, 5c.....	0 79	
	3 lbs. rivets, 24c.; 1 pick handle, 25c.; 80 lbs. rope, at 15c., \$12.....	12 49	
do 17...	John Battle, Thorold— 6 barrels cement, at \$1.50.....		49 76 9 00
Aug. 1-31...	James Rolston, Dunnville—		
	1 d. h. shovel, \$1; ½ doz. pencils, 25c.; 2 lumb. pencils, 20c.....	1 45	
	4 lbs. nails, 16c.; screws, 5c.; 1 sledge, \$1.25; 2 padlocks, \$1.....	2 46	
	1 hasp hinge, 15c.; 613 lbs. ¼-in. cable chain, \$30.65.....	30 80	
	3 lbs. washers, 30c.; 98 lbs. B. pure manilla, at 15c., \$14.70	15 00	
	1 saw rod, 10c.; 3 glass 10x12, 27c.; 2 glass 8½x14, 14c.....	0 51	
	2 hooks and eyes, 10c.; putty, 5c.; 27 lbs. sq. nuts, \$1.62	1 77	
	4 lbs. washers, 40c.; 1 auger, 60c.; 300 lbs. iron, \$7.50;		
	1 pick, \$1.....	9 50	
	1 pick handle, 25c.; 4 glass 10x12, 24c.; 5 tower bolts, 35c.....	0 82	
	2 lanterns, \$1.30; 1 globe, 15c.; 4 lbs. manilla rope, at 15c., 60c.....	2 05	
	1 gall. oil, 80c.; 25 lbs. red lead, \$2; lampblack, 10c....	2 90	
	2 brushes, 38c.; 1 whisk, 15c.; 1½-in. auger, 75c.; 1 handle, 10c.....	1 38	
	2 brooms, 70c.; sandpaper, 5c.; 224 lbs. wrought spikes, at 5c., \$11.20.....	11 95	
	3 galls. raw oil, \$2.25; 31 lbs. iron, 78c.; 15½ lbs. putty, 62c.....	3 65	
	6 bolts, 18c.; paid freight, \$2.03; 1 gross screws, 15c.; borax, 5c.....	2 41	
	25 lbs. red lead, \$2; 1 gall. boiled oil, 80c.; 5 lbs. oxide, 25c.....	3 05	
	1 seam brush, 25c.; 1 oval paint brush, 75c.; ¼ gall. lard oil, 35c.....	1 35	
	W. N. Braund, Dunnville—		91 07
May 1-30...	2 pails and 1 dipper, 95c.; 2 gallons pails and dipper, 90c.	1 85	
July 2...	1 glass oil can, 55c.; 1 pail, 35c.; 1 dipper, 10c.....	1 00	
Aug. 1-6...	3 joints pipe, 45c.; 1 double elbow, 50c.; pail, 50c.....	1 45	
	1 shoe scraper, 25c.; 1 lifter, 10c.....	0 35	
	Difference in exchange of stoves.....	10 00	
	½ joint pipe, 10c.; 1 large galv. water bowl, 30c.....	0 40	
	1 tea kettle, \$1.30; 1 galv. dustpan, 25c.; cap 20c.....	1 75	
July 25-26...	Charles Loesch, Welland—		18 00
	9 meals, at 25c., \$2 25; feed for team, \$1.50.....		3 75
	Above for bringing repair scow down from Dunnville to Allanburgh.		
July 26...	James Upper, Allanburgh—		
	8 meals, \$2; lodging, 50c.; horse feed, \$1.....		3 50
	For men over night after leaving scow at Allanburgh.		
Aug. 1-31...	James Wilson, Merritton—		
	2,204 lbs. castin. s, at 3½c.....	77 14	
	45 lbs. brass nuts, at 30c.....	13 50	
	390½ hrs. drilling, boring and fitting, at 40c.....	156 20	
	2 new valves, complete, at \$58.....	116 00	
			362 84



## Accounts chargeable to Welland Canal—Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
		\$ cts	\$ cts.
Aug. 1-31...	James Wilson, Merritton— 718 lbs. bars rep., at 1½c., \$10.77; 518 lbs. bolts rep., at 2c., \$10.36.....	21 13	
	348 T bolts rep., at 2½c., \$8.70; 201 lbs. rag spikes, at 3c., \$3.03.....	14 73	
	1,135 lbs. plates and bands, at 4c.....	45 40	
	2,965 lbs. new screw bolts, at 5c.....	148 25	
	40½ lbs. slating, \$2.43; 24 lbs. new steel, at 20c., \$1.80...	7 23	
			236 74
Aug. 1-31...	McCleary & McLean, Thorold— 800 ft. pine, at \$13.50, \$10.80; 2,920 ft. pine, at \$16, \$46.72	57 52	
	500 do \$17.50, \$8.75; 1,538 do \$18, \$27.68	36 43	
	655 do \$20, \$13.10; 128 do \$25, \$3.20	16 30	
	105 do \$30, \$3.15.....	3 15	
	4,571 ft. oak, at \$25, \$114.27; 1,046 ft. oak, at \$28, \$29.29	143 56	
	85 do \$30.....	2 55	
	10½ square shingles, at \$2.25.....	24 00	
	25 bunches lath, at 25c., \$6.25; 100 ft. mouldings, at 2c., \$2.....	8 25	
			291 76
			4,222 51

PAY-LIST in duplicate of persons employed on the Welland Canal during the month of September, 1887, for completing Stone Shed, Port Dalhousie, repairing banks, opening up and cleaning out ditches, turning snub posts, repairing Breakwater, Port Colborne, chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	Sept., 1887	H. Vanderburgh.....	1 month...	75 00	75 00
do .....	do	Wm. M. Jones.....	29½ days...	2 00	59 00
do .....	do	Jas. Hindson.....	26 do ...	2 00	52 00
do .....	do	R. Marshall.....	25½ do ...	2 00	51 50
do .....	do	John Bowman.....	25 do ...	2 00	50 00
do .....	do	Alf. Cook.....	26 do ...	2 00	52 00
do .....	do	Wm. Patterson.....	27½ do ...	2 00	54 50
Handy man.....	do	R. Johnson.....	25½ do ...	1 75	44 63
do .....	do	John Doig.....	26 do ...	1 75	41 50
Laborer .....	do	R. Houston.....	24 do ...	1 50	36 00
do .....	do	Geo. Irvine.....	25 do ...	1 50	37 50
Painter.....	do	A. Inpey.....	26 do ...	2 00	52 00
Team.....	do	John Shultis.....	25½ do ...	3 50	88 37
Division No. 1.					
Laborer.....	do	C. Reed, foreman.....	26 do ...	2 00	52 00
do .....	do	Geo. Julian.....	26 do ...	1 50	39 00
do .....	do	Thos. McClelland.....	26 do ...	1 50	39 00
do .....	do	Alex. McCullough.....	26 do ...	1 50	39 00
do .....	do	D. Salvin.....	26 do ...	1 50	39 00
do .....	do	Adam Flood.....	27 do ...	1 50	40 50
do .....	do	Andrew Secord.....	24 do ...	1 50	36 00
do .....	do	John Yates.....	26 do ...	1 50	39 00
do .....	do	Jas. Steven.....	25½ do ...	1 50	38 25
do .....	do	Thos. Hammond.....	22 do ...	4 50	33 00
do .....	do	Wm. Daley.....	22½ do ...	1 50	33 75
do .....	do	Thos. Hayden.....	23 do ...	1 50	34 50
Team.....	do	Joseph Johnson.....	10 do ...	3 00	30 00
Watchman .....	do	Oscar Sharp .....	30 do ...	1 50	45 00
do .....	do	John McMillan.....	30 do ...	1 20	36 00

PAY-LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 2.</i>				\$ cts.	\$ cts.
Laborer.....	Sept., 1887	Jas. Reynard, foreman	11 days ...	2 00	22 00
do .....	do	John O'Neil.....	10½ do ...	1 50	15 75
do .....	do	Wm. Wilson.....	10½ do ...	1 50	15 75
do .....	do	Joseph Wilson.....	10½ do ...	1 50	15 75
do .....	do	D. McIntyre.....	10½ do ...	1 50	15 75
do .....	do	John Malia.....	10½ do ...	1 50	15 75
do .....	do	F. Elliott.....	10½ do ...	1 50	15 75
do .....	do	R. Arms.....	10½ do ...	1 50	15 75
do .....	do	James Irvine.....	13½ do ...	1 50	20 63
do .....	do	Wm. Wills.....	10½ do ...	1 50	15 75
do .....	do	Thos. Donahue.....	14½ do ...	1 50	21 75
do .....	do	John McNolty.....	10½ do ...	1 50	15 75
do .....	do	Wm. Mable.....	11½ do ...	1 50	17 25
do .....	do	Wm. Collard.....	10½ do ...	1 50	15 75
do .....	do	Ed. Flynn.....	11 do ...	1 50	16 50
do .....	do	F. Donahue.....	10½ do ...	1 50	15 75
do .....	do	Geo. Cashen.....	9 do ...	1 50	13 50
do .....	do	Isaac McMann.....	2½ do ...	1 50	3 75
do .....	do	Frank Galbraith.....	2 do ...	1 50	3 00
do .....	do	James Smerdon.....	1 do ...	1 50	1 50
do .....	do	John Cole.....	1 do ...	1 50	1 50
do .....	do	R. Grisdale.....	1 do ...	1 50	1 50
do .....	do	Saml. Bradley.....	2 do ...	1 50	3 00
Handy man.....	do	Alex. Wilson.....	2½ do ...	1 75	6 13
do .....	do	Jas. Reynolds.....	2½ do ...	1 75	4 37
do .....	do	Jas. Bradley.....	2½ do ...	1 75	4 37
do .....	do	James Franklin.....	3½ do ...	1 75	6 12
do .....	do	Peter Paxton.....	2½ do ...	1 75	4 37
do .....	do	William Elliott.....	1½ do ...	1 75	2 13
do .....	do	Isaac Johnston.....	3 do ...	1 75	5 25
do .....	do	Thos. Scott.....	3½ do ...	1 75	6 13
do .....	do	Jos. Reuter.....	5 do ...	1 50	7 50
do .....	do	H. Dill.....	19 do ...	1 50	28 50
Team.....	do	Robt. Hoover.....	10½ do ...	3 25	34 13
<i>Division No. 3.</i>					
Laborer.....	do	R. A. Booth, foreman.	17 do ...	2 00	34 00
do .....	do	G. A. Jordan.....	9 do ...	2 00	} 46 00
do .....	do	do .....	16 do ...	1 75	
do .....	do	John Madigan.....	26 do ...	1 50	39 00
do .....	do	Geo. Brown.....	24 do ...	1 50	36 00
do .....	do	Benj. Redfern.....	26 do ...	1 50	39 00
do .....	do	Jas. Hansel.....	25½ do ...	1 50	38 63
Mason.....	do	Wm. Chandler.....	25 do ...	1 75	43 75
Team.....	do	John Watson.....	12½ do ...	3 50	43 75
<i>Divisions Nos. 3 and 4.</i>					
Laborer.....	do	James Clancey.....	26 do ...	2 00	52 00
do .....	do	Hugh Bailey.....	26 do ...	1 50	39 00
do .....	do	Michl. Blake.....	26 do ...	1 50	39 00
do .....	do	Wm. Pew.....	25 do ...	1 50	37 50
Watchman.....	do	John Hanley.....	26 do ...	1 00	26 00
do .....	do	Wm. Cheluds.....	4 do ...	1 50	6 00
<i>Division No. 4.</i>					
Laborer.....	do	Wm. Cook, foreman..	26 do ...	2 00	52 00
do .....	do	Jacob Cook.....	24½ do ...	1 50	36 75
do .....	do	William Decks.....	26 do ...	1 50	39 00
do .....	do	Chas. Keen.....	26 do ...	1 50	39 00
do .....	do	John Harbison.....	12 do ...	1 50	18 00
do .....	do	James Leslie.....	26 do ...	1 50	39 00

PAY LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Laborer.....	Sept, 1887	John Mahagan.....	26 days...	1 50	39 00
do .....	do	Michl. Anthes.....	26 do	1 50	39 00
do .....	do	John Moyer.....	26 do	1 50	39 00
do .....	do	Geo. Petty.....	16 do	1 50	24 00
do .....	do	Chas. Smith.....	3 do	1 50	4 50
Team.....	do	Saml. Cook.....	21 $\frac{1}{4}$ do	3 50	76 12
<i>Old Welland Canal and Feeder.</i>					
Carpenter.....	do	N. Morey, foreman....	26 do	2 75	71 50
do .....	do	P. Shortell.....	25 $\frac{3}{4}$ do	2 00	51 50
do .....	do	S. Radcliffe.....	26 do	2 00	52 00
do .....	do	T. Rapsey.....	24 $\frac{1}{2}$ do	2 00	49 00
do .....	do	Chas. Hill.....	26 do	3 50	91 00
Watchman.....	do	J. W. Boyle.....	30 do	1 00	30 00
Laborer.....	do	Thos. O'Neil.....	27 do	2 00	54 00
do .....	do	R. Wilson.....	26 do	1 50	39 00
do .....	do	John Hunphill.....	28 do	1 50	42 00
do .....	do	Geo. Wilson.....	26 do	1 50	39 00
do .....	do	Richard Grant.....	23 do	1 00	23 00
do .....	do	R. Edgraff, jr.....	18 do	1 50	27 00
Quarry and scow man.....	do	Jas. Hamilton.....	27 $\frac{1}{2}$ do	2 00	55 00
do do .....	do	Albert Bradley.....	26 do	1 50	39 00
do do .....	do	Jas. Faywell.....	27 $\frac{1}{2}$ do	1 50	41 25
do do .....	do	Albert Bradley.....	27 $\frac{1}{2}$ do	1 50	41 25
do do .....	do	Jerry Langhey.....	26 $\frac{1}{2}$ do	1 50	39 38
do do .....	do	John Dundas.....	16 do	1 50	24 00
do do .....	do	John Brennan.....	27 $\frac{1}{2}$ do	1 50	41 25
do do .....	do	Jas. Reynard.....	10 do	1 50	15 00
Team.....	do	C. Tenbrook.....	27 do	3 50	94 50
Turner.....	do	Alex. Galt.....	13 do	3 00	39 00
Machinist.....	do	Jas. Bredner.....	8 do	2 25	18 00
Carpenter.....	do	Fred Woods.....	8 do	1 75	14 00
do .....	do	James Elliott.....	8 do	1 75	14 00
Laborer.....	do	P. Patterson.....	8 do	1 50	12 00
do .....	do	Geo. House.....	8 do	1 50	12 00
Carpenter.....	do	F. T. Walton, foreman	26 do	2 75	71 50
do .....	do	S. R. Bradley.....	27 do	2 00	54 00
do .....	do	E. Smith.....	26 do	2 00	52 00
do .....	do	D. S. Walton.....	22 do	2 00	56 00
do .....	do	Wm. H. Dunn.....	28 do	2 00	44 00
do .....	do	S. J. Hill.....	26 do	2 00	52 00
Horse and waggon.....	do	F. T. Walton.....	21 do	1 50	31 50
Mason.....	do	W. Wilkerson.....	26 do	3 00	78 00
Laborer.....	do	Pat Griffin.....	26 do	1 50	39 00
do .....	do	Albert Bradley.....	26 do	1 50	39 00
<i>Dunnville.</i>					
Carpenter.....	do	E. Blott.....	15 do	1 50	22 50
do .....	do	M. Green.....	19 $\frac{1}{2}$ do	1 50	29 25
do .....	do	Ira Bessey.....	14 do	1 50	21 00
Laborer.....	do	E. Webber.....	26 do	1 25	32 50
do .....	do	James Blott.....	26 do	1 25	32 50
do .....	do	James Davis.....	26 do	1 25	32 50
do .....	do	James Gamble.....	15 do	1 25	18 75
do .....	do	Wm. Bessey.....	5 do	1 25	6 25
Team.....	do	M. A. Smith.....	8 do	3 00	24 00
do .....	do	R. G. Murdy, 2.....	27 $\frac{1}{2}$ do	2 50	68 75
do .....	do	D. Slaid.....	4 $\frac{1}{2}$ do	2 50	11 25
					4,530 51



## ACCOUNTS Chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.	To Coy Bros., St. Catharines—		
Sept. 1-30...	3 cross cut saws, \$2, \$2.50, \$4.50.....	9 00	
	4 pairs handles, \$3.50; 50 wrought nails, at 8c., \$4.....	7 50	
	624 spikes, at 5c., \$31.20; 5 back staples, 35c.....	31 55	
	50 lbs. oxide paints, \$3; 2 paint brushes, \$1.75.....	4 75	
	1 putty knife, 25c; 1 lb. ultra-marine blue, 25c.....	0 50	
	2 gallons turpentine, \$1.40; 2 sash tools, 40c.....	1 80	
	2 flat paint brushes, \$1.75; 4 oval paint brushes, \$6.....	7 75	
	1 gallon shellac, \$3; 5½ gallons castor oil, \$6.88.....	9 88	
	45 gallons raw oil, at 75c., \$33.75; 45½ gallons boiled oil, at 78c., \$35.49.....	69 24	
	6 bales oakum, \$30; 300 deck plugs, 75c.....	30 75	
	1 wrench, 75c.; 1 sash tool, 25c.; 5 gallons turpentine, at 75c., \$3.75.....	4 75	
	52 steel hammers, at 30c., \$15.60; 16½ feet belting, at 65c., \$10.56.....	26 16	
	200 lbs. white lead, \$15; 500 deck plugs, \$1.50.....	16 50	
	2 seanny brushes, 60c; 101 lbs. tallow, at 10c., \$10.10...	10 70	
	5 gallons lard oil, \$5; 1 hollow auger, \$5.....	10 00	
	2 spike sets, \$2.25; 40 barn brooms, at 75c., \$30. ....	32 25	
	James Wilson, Thorold—		273 08
do 1-30...	¾ lb. marline, 15c.; 1 lb. lamp black, 15c.....	0 30	
	280 lbs spikes, at 5c., \$14; 200 lbs. spikes, at 5½c., \$13.20	27 20	
	2 padlocks, at 45c.....	0 90	
	R. A. Abbey, Port Robinson—		28 40
do 1-30...	1 box matches, 15c.; 3 gallons coal oil, 90c.....	1 05	
	1 box axle grease, 15c.; 7 lbs. oatmeal, 25c.....	0 40	
	25 lbs. white lead, \$1.20; 1 gallon boiled oil, \$1.....	2 80	
	¼ gallon turpentine.....	0 35	
	Wm. H. Garden, Welland—		4 60
do 1-30...	12 backcoin and staples, at 7c.....	0 84	
	Paid for carting bridge machinist's tools to G.T.R.....	0 50	
	John Mathews, Port Colborne—		1 34
do 1-30...	200 lbs. spikes, at 5c., \$10; 75 lbs. white lead, at 7c., \$5.25.....	15 25	
	5½ gallons boiled oil, at 80c., \$4.40; 10 lbs. putty, at 5c., 50c.....	4 90	
	1 can raw umber, 25c.; coin screw, 10c.....	0 35	
	1 mat block, \$1.25; coin screw, 38c.; 10 bushels lime, \$2 50.....	4 13	
	1 chisel handle, 5c.; 2 files, 20c.; 25 lbs. nails, at 4c., \$1.....	1 25	
	4 lbs. nails, at 5c., 20c.; ½ doz carpenters' chalk, 20c..	0 40	
	1 barrel oats.....	1 63	
	George Lloyd, St. Catharines—17 Mascotte coal stoves, filled up, and lock houses, \$14.50.....		27 91
do 29...	Richard Hou e, St. Catharines—		246 50
do 5-13...	2 measures, \$2.50; cleaning out furnace gig, \$1.50.....	4 00	
	Heating stove, \$10; 4½ joints pipe, 90c.....	10 90	
	1 elbow, 25c.; 3½ x 3 line, 80c.; collar, 10c. and 5c.....	1 20	
	P. McMurray, Welland—		16 10
1886.	1 glass, 10c.; (26) 1 glass and rip lamp, 25c.....	0 35	
Nov. 20...	Repairing 2 lamps.....	0 50	
Dec. 14...	1887.		
Mar. 22...	1 joint pipe, 10c.; (April 20th) 1 joint pipe, 10c.....	0 20	
Apr. 20...	2 pails, 50c.; 1 oil can, 60c.; 1 dipper, 20c.....	1 30	
do 30...	1 lantern burner, 35c.....	0 35	
May 2-26...	Galvanized iron and nails, 75c.; time for 2 men, \$1.....	1 75	
	Repairing smoke stack, 25c.; new glass and repairing lantern, 50c.....	1 75	

### Accounts chargeable to Welland Canal, Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
May 2-26...	To P. McMurray, Welland—		
	1 large sprinkler, \$1; 4 joints pipe, 65c.; 1 dipper, 20c.	1 85	
	1 lantern globe, 20c.; 3 new glasses, 40c.; 2 pails, 50c.	1 10	
	2 new glasses and repairing lamp, 40c.; repairing 2 lamps and glasses, 75c.	1 15	
Aug. 12...	Repairing pump, 25c.; (Sept. 5th) 1 pail, 25	0 50	
			9 80
Sept. 15...	Chas. Hart, Humberstone—60 chains, hook and rings, at 5c.		3 00
do 13-15...	B. McGraith, Port Dalhousie—20 meals for men turning posts		5 00
Sept. 30...	To Mrs. Jordan, Port Robinson—		
	Meals, 8 men, 1 day each, at 75c.	6 00	
	Horse feed	1 50	
	26 days' board for mason	19 50	
			27 00
do 1-30...	Charles A. White, Humberstone—		
	18 meals for diver, at 25c., \$4.50; hay and oats for team, \$1.50	6 00	
	10 meals for Chatfield, at 25c.	2 50	
	Hay and oats for horse	0 50	
	6 days' feed for team, scow "Sir John"	6 00	
			15 00
do 14-15...	Aben Simpson, Port Colborne—8 meals and 2 beds for diver and helper, at 25c.		2 50
do 14...	J. G. Demare, Port Dalhousie—		
	1 railway fare diver and helper, and freight on air pump to Port Colborne	3 00	
do 27...	Expenses to Buffalo and return to arrange machine and auger knives	4 25	
do 29...	Return fare for diver and helper to Humberstone, and freight on air pump	4 10	
			11 45
Aug. 5-20...	F. T. Walton, Thorold—		
Sept. 24...	4 railway fares, Thorold to Port Colborne and return	3 80	
	1 railway fare, St. Catharines to Port Colborne and return	1 10	
	Expenses at Port Colborne	1 20	
			6 10
do 1-30...	H. Vanderburgh, Allanburgh—26 railway fares, Allanburgh to Port Dalhousie and return, at 70c.		18 20
do 1-30...	Robert Foster, St. Catharines—		
	Horse and buggy, 3 days, at \$2.50	7 50	
	do 7 do 1.50	10 50	
	(Above for Wm. Ellis, Superintendent.)		
	Horse and waggon, 25 days, at \$2.50	62 50	
	(Above for W. Chatfield and man on bridge repairs, &c.)		80 50
do 1...	Grand Trunk Railway Co., Port Colborne—		
do 6...	Freight on diving pump, Port Dalhousie	1 60	
do 15...	do castings from Merritton	0 35	
	do diving pump, Port Dalhousie	1 60	
	2 tickets, Port Dalhousie, \$1.50; express charge on glass, 60c.	2 10	
			5 65
Aug. 9...	John Cloy, Thorold—320 spike		12 80
Sept. 14...	A. McIndoe, Thorold—		
	Repairing blocks, 1 10 in. double shell and 1 steel pin	2 75	
	1 new side and end piece on double 10 in. block	1 25	
			4 00

## ACCOUNTS chargeable to Welland Canal—Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Aug. 30...	To C. F. & H. F. Dunbar, Port Colborne—Use of bridge, one-half day, removing large stone obstruction from bottom of canal.....		50 00
Sept. 1-30...	James Wilson, Merritton—		
	Repairing rods, &c., 160 lbs., at 2c.....	3 20	
	do screw bolts, 2,209 lbs., at 2½c.....	55 23	
	New plates and bands, 6,447 lbs., at 4c.....	257 88	
	do screw bolts, 3,510 lbs., at 5c.....	175 50	
	do bolts, 96 lbs., at 10c.....	9 60	
	do steel, 74½ lbs., at 20c.....	14 90	
	Steeling, 55 lbs., at 6c.....	3 30	
			519 61
Sept. 1-30...	James Wilson, Merritton—		
	1,434 lbs. castings, at 3½c.....	50 19	
	742 lbs. castings and gear, at 7c.....	51 94	
	12 steel set screws, at 15c.....	1 80	
	210 lbs. brass nuts, at 30c.....	63 00	
	328 hrs. drilling, boring, planing and filling, at 40c.....	131 20	
	359 lbs. phosphor bronze, at 45c.....	161 55	
			459 68
do 1-30...	McCleary & McLean, Thorold—		
	7,620 ft. pine, at \$16, \$121.92; 1,142 ft. pine, at \$17, \$19.41.....	141 33	
	1,612 ft. pine, at \$17.50, \$28.21; 856 ft. pine, at \$18, \$15.41.....	43 62	
	1,150 ft. pine, at \$20, \$23; 150 ft. pine, at \$25, \$3.75.....	26 75	
	84 ft. pine, at \$30, \$2.52; 1,067 ft. pine, at \$35, \$37.35...	39 87	
	263 ft. pine, at \$30.....	10 52	
	4,913 ft. oak, at \$25, \$122.83; 5,792 ft. oak, at \$28, \$162.18.....	285 01	
	243 ft. cedar, at \$20, \$4.85; 100 ft. maple, at \$45, \$4.50...	9 36	
	160 ft. moulding, \$1.60; 234 ft. moulding, at 1½c, \$3.51;		
	240 ft. moulding, \$4.80.....	9 91	
	75 ft. moulding, at 3c, \$2.25; 50 ft. moulding, at 4c, \$2;		
	108 ft. moulding, at 5c, \$5.40.....	9 65	
	725 pickets, at 3c, \$21.75; 31 cedar posts, at 25c, \$7.75;		
	3,000 shingles, at \$2.30, \$6.90.....	36 40	
	Ripping oak, 50c.; 3 fence caps, 38c.; —————\$1.75...	2 63	
	4 urns (turning), \$1.40; 360 ft. stops, at 3½c, \$2.70.....	4 10	
	108 ft. stops.....	1 08	
			620 23
do 30...	Battle & Smith, Thorold—53½ galls paint, No. 15, at \$1.90.....		101 65
	<i>Old Welland Canal.</i>		
do 1-30...	To Coy Bros., St. Catharines—		
	1 paint brush, \$1.25; glass and putty, 12c.....	1 37	
	3 galls. lard oil.....	3 00	
			4 37
do 1-30...	James Wilson, Thorold—		
	Lace leather, 60c.; 2 galls. lard oil, \$2.....	2 60	
	2 paint brushes, \$2; 5 paint brushes, at 50c., \$2.50.....	4 50	
	4 lbs. drop black, \$1; 1½ galls. turpentine, \$1.50; 20 lbs. putty, \$1.....	3 50	
	7 lbs. green paint, at 28c., \$1.96; 1 gall. oil, \$1; 512 lbs. spikes, at 5c., \$25.60.....	28 56	
	4 lbs. cut nails, \$1; 1 gross screws, 45c.; 6 lbs. washers, at 10c., 60c.....	2 05	
	½ gall. knotting, \$1.75; 98 lbs. rope, at 15c., \$14.70;		
	nails, 50c.....	16 95	
	Axe and handles.....	1 25	
	*40 lbs. ham, at 15c., \$6; corn beef, 40c.; 2 lbs. tea, \$1;		
	25 lbs. butter, at 30c., \$7.50.....	14 90	



ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Sept. 1-30...	To James Wilson, Thorold— *Sugar, \$2; potatoes, \$3.30; cabbage, \$1; soap, 25c.; salt and pepper, 35c..... *Cocoanut, 25c.; matches, 20c.; combs, 15c.; broom, 25c.; *Onions, 50c.; bread, \$2; biscuits, \$1.80; cheese, \$1....  *For men on repair scow, "Sir John."	6 90 0 85 5 30	86 '6
do 1-30...	To James Rolston, Dunnville— 1 pick-axe and handle, \$1.25; 12½ lbs. spikes, 50c.; 1 ball twine, 25c..... 16 ft. manilla line, at 15c., \$2.40; 2 ft. gas-pipe, 20c.; 1 paper file, 20c..... 32 ft. ¾-in. iron, 80c.; 336 ft. wrought spike, at 5c., \$16 80; 114 ft. iron, at 2½c., \$2.85..... Paid freight on stone, \$1.17; 21 lbs. putty, 84c.; wash- ers, 15c..... 2 handles, 50c.; padlock, 50c.; hasp and hook, 15c.; 30 spikes, \$1.50..... 14 ft. ¾-in. iron, 35c.; 267 ft. iron, \$6 68.....	2 00 2 80 20 45 2 16 2 65 7 03	37 09
do 1-30...	To Henry Mussen, Allanburgh— 1 gross screws, 30c.; 20 lbs. nails, at 4c., 80c.; 5 lbs. shingle nails, 25c..... 5 lbs. zinc nails, at 6c., 30c.; 2 wood pails, 5 c.; 12 lbs. nails, 48c.; 1 dipper, 15c..... 2 rolls paper, 12c.; scrub-brush, 30c.; sand-paper, 10c.. 10 rolls wall paper, \$1 25; ½ lb. glue, 15c.; 30 lbs. nails, \$1 20..... 33 yds. border, \$1.65; 12 lbs. shingle nails, 60c.; 10 lbs. nails, 40c..... 33 yds. border, \$1.65; 40 spikes, \$1; 15 lbs. nails 60c.... 10 rolls wall paper, \$2; 5 lbs. nails, 20c.; 1 box glass, \$2.75; 6 lbs. putty, 30c..... 15 lbs. zinc nails, 90c.; 3 rolls wall paper, 60c.; 10 lbs. nails, 40c..... 2 pairs large hinges and screws, 50c.; 2 pairs loose butt screws, 50c..... Locks and knobs, \$1.50; 1 gross screws, 35c.; sand paper, 10c..... ¼ gall. knotting, 50c.; 6 strap hinges, 60c.; 2 doz. screws, 10c..... 1 gall. boiled oil, 80c.; glazing points, 16c.; hook and staples, 13c..... 20 spikes, \$1; 15 lbs. nails, 75c.; 10 lbs. nails, 40c.; 1½ doz. coat hooks, 40c..... 1 box matches, 13c.; 1 doz. screws, 5c.; 1 trap door ring and screws, 20c..... 4 gross screws, \$1; 18 sets blind hinges, at 20c., \$3.60; 1 box glass, \$2..... 5 lbs. nails, 20c.; 6 lbs. Imperial green, \$1.50; 9 dozen screws, 55c.; hooks, 13c..... 1 pair hinges, 15c.; 1 gall. turpentine, 80c.; black paint, 15c..... 10 lbs. French green, at 25c.....	1 35 1 43 0 52 2 60 2 65 4 25 5 25 1 90 1 00 1 95 1 20 1 09 2 55 0 38 6 60 2 38 1 10 2 50	40 70
Aug. 31...	To Welland Vale Manufacturing Co., St. Catharines— ½ hour's time turning rollers.....	0 63	
Sept. 12...	8 washers, 10c.; 3 hooks, 75c.; 3 bolts, 25c.....	1 10	
do 23...	Repairing large iron bar.....	1 00	
do 29...	To R. G. Murdy, Dunnville—55 yds.....		2 73
			33 00

ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Sept. 1-30...	To James Wilson, Merritton—		
	Repairing shafts, 867, at 2c.....	17 34	
	do screw bolts, 1,294, at 2½c.....	32 35	
	Railway spikes (new), 73, at 3c.....	3 19	
	Plates and bands (new), 1,917, at 4c.....	77 88	
	Screw bolts (new), 1,850, at 5c.....	92 50	
	Steeling, 53, at 6c.....	3 18	
	New steel, 3, at 20c.....	0 60	
			226 04
do 1-30...	James Wilson, Merritton—		
	New castings, 1,559 lbs., at 3½c....	54 56	
	do 16 lbs., at 15c.....	2 40	
	Babbit metal, 5, at 25c.....	1 25	
	Brass nuts, 47, at 30c.....	14 10	
	1 new valve, complete.....	58 00	
	258 hrs. drilling, boring and fitting, at 40c.....	103 20	
			233 51
do 1-10...	Thomas Grenville, Thorold—2 men painting, 36 days, at \$2.....		72 00
July 25...	Wm. Wilson, St. Catharines—Kalsomining ceiling, Canal Office.....		2 50
Sept. 1-30...	McCleary & McLean, Thorold—		
	4,595 ft. pine, at \$16, \$73 52; 387 ft. pine, at \$17.50, \$6.78.....	80 30	
	3,829 do 18, 68.92; 909 do \$20, \$18.18..	87 10	
	466 do 21, 9.79; 1,024 do 23, 23.55..	33 34	
	899 ft. oak, at 25, 22.47; 5,009 ft. oak, at 27, 118.24..	130 71	
	4,222 ft. oak, at \$28.....	118 22	
	1,380 ft. elm, at \$17.....	23 46	
	5 sqr. shingles, at \$2.30, \$11.50; 17 bundle laths, at 25c., \$4.25; 8 cedar posts, \$2.....	17 75	
	63 windows, at 75 cts., \$47.25; 2 cellar sash, 70c.....	47 95	
	2 doors, \$4.50; 92½ blinds, at 35c., \$32.37.....	36 87	
			575 70
do 21-22-23.	George Gibson, P.L.S., St. Catharines—		
	Survey Canal boundaries and mill race at Thorold.....	10 00	
	As istant, \$3; plan of above survey, \$5.....	8 00	
			18 00
Aug. 11...	Henry Law, P.L.S., Dunnville—		
	Survey R. Ferguson's lot, Cayuga.....	6 00	
	Expenses, \$1.50; plan, \$2.....	3 50	
			9 50
Sept. 21...	E. Riddle & Son, St. Catharines—		
	304 ft. 6-inch tile, at 20 cts., \$60.80; 6 6-inch elbows, at 60 cts., \$3.60.....	64 40	
	2 6-inch Y branches, at 80 cts., \$1.60; 2 6-inch tees, at 80 cts., \$1.60.....	3 20	
			67 60
			3,959 20

**PAY-LIST** in duplicate of persons employed on the Dunnville Division of the Welland Canal during the month of September to repair the West Pier at Port Maitland, chargeable to Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
			\$ cts.	\$ cts.	\$ cts.
Foreman on pier.....	Sept., 1887	Jas. Edgar .....	26 days...	2 00	52 00
Carpenter.....	do	Richard Mitchel.....	26 do	1 50	39 00
do	do	Banks Nelson.....	26 do	1 50	39 00
do	do	John Taylor.....	25 do	1 50	37 50
do	do	Joe Matthews.....	26 do	1 50	39 00
do	do	David Cooper.....	25 do	1 50	37 50
do	do	Chas. Crawford.....	7½ do	1 50	11 25
do	do	Freeman Green.....	7 do	1 50	10 50
do	do	John McGee.....	26 do	1 50	39 00
do	do	Geo. Mylne.....	17 do	1 25	21 25
do	do	Bart. Bennett.....	7 do	1 25	8 75
do	do	Wm. Moss.....	16 do	1 25	20 00
do	do	Chas. Runion.....	5 do	1 25	6 25
do	do	Wm. Billington.....	4 do	1 25	5 00
Teaming material.....	do	Robert Montague.....	11½ do	2 50	29 37
Foreman on stone scow.....	do	John Thrush.....	26 do	1 50	39 00
Laborer.....	do	Angus McDonald.....	26 do	1 25	32 50
do	do	Thos. Bessey.....	25 do	1 25	31 25
do	do	Robt. Runchey.....	26 do	1 25	32 50
do	do	Jas. Heifern.....	26 do	1 25	32 50
do	do	Joel Smith.....	21 do	1 25	26 25
Team towing scow.....	do	R. G. Murdy.....	24 do	2 50	60 00
					\$649 37

**ACCOUNTS** chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
	James Rolston.....	61 18	
	M. A. Smith.....	53 40	
			114 58



PAY-List in duplicate of persons employed on the Welland Canal during the month of October, 1887, to repairing flats, swing and tow-path bridges, &c., replanking same, repairing banks, opening up and cleaning out back ditches, facing slopes harbor with stones, &c., chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter.....	Oct., 1887.	H. Vanderburgh.....	1 month.	75 00	75 00
do .....	do	Wm. M. Jones.....	18 days....	2 00	36 00
do .....	do	Jas Hindson.....	27 do .....	2 00	54 00
do .....	do	Wm. Patterson.....	26½ do .....	2 00	53 00
do .....	do	Wm. Mossip.....	26 do .....	2 00	52 00
do .....	do	A. Coons.....	26 do .....	2 00	52 00
Painter.....	do	A. W. Impey.....	28 do .....	2 00	56 00
Handy man.....	do	John Doig.....	20½ do .....	1 75	35 88
do .....	do	Robt Johnston.....	11½ do .....	1 75	20 13
Caulker.....	do	R. Marshall.....	24½ do .....	2 00	49 00
do .....	do	John Bowman.....	23½ do .....	2 00	47 00
Laborer.....	do	R. Houston.....	11½ do .....	1 50	17 25
do .....	do	George Irvin.....	11½ do .....	1 50	17 25
Team.....	do	John Shultes.....	26 do .....	3 50	91 00
<i>Division No. 1.</i>					
Laborer.....	Oct., 1887	Con Reed, foreman...	26 days ...	2 00	52 00
do .....	do	F. D. Salvin.....	17 do .....	1 50	25 50
do .....	do	Adam Flood.....	28 do .....	1 50	42 00
do .....	do	Andrew Secord.....	11 do .....	1 50	16 50
do .....	do	John Gates.....	12 do .....	1 50	18 00
do .....	do	Jas. Steven.....	25 do .....	1 50	37 50
do .....	do	Wm. Daley.....	22 do .....	1 50	33 00
do .....	do	Thos. Hammond.....	26 do .....	1 50	39 00
do .....	do	Thos. Kelley.....	3 do .....	1 50	4 50
do .....	do	J. McClelland.....	26 do .....	1 50	39 00
do .....	do	Alex. McCulloch.....	26 do .....	1 50	39 00
do .....	do	Geo. Julian.....	26 do .....	1 50	39 00
Horse and waggon.....	do	A. Reed.....	26 do .....	1 50	39 00
Team (2).....	do	Jos. Johnston.....	39½ do .....	3 50	138 25
do .....	do	J. Johnston.....	3½ do .....	1 75	6 13
<i>Division No. 2.</i>					
Laborer.....	Oct., 1887.	Hiram Dell.....	26 days ...	1 50	39 00
do .....	do	Jacob Reuter.....	2 do .....	1 50	3 00
do .....	do	Thos. Hayden.....	20 do .....	1 50	30 00
Team.....	do	Robt. Hoover.....	1½ do .....	3 50	4 38
<i>Division No. 3.</i>					
Laborer.....	Oct., 1887.	R. A. Booth.....	26 days....	2 00	52 00
do .....	do	G. A. Jordon.....	23½ do .....	1 75	41 13
do .....	do	John Madigan.....	26 do .....	1 50	39 00
do .....	do	George Brown.....	26 do .....	1 50	39 00
do .....	do	James Hansel.....	23 do .....	1 50	37 50
do .....	do	Ben. Redfern.....	26 do .....	1 50	37 50
Team.....	do	John Watson.....	10½ do .....	3 50	36 70
<i>Divisions 3 and 4.</i>					
Laborer.....	Oct., 1887.	Jas. Clancy, foreman...	26 days....	2 00	52 00
do .....	do	H. Bailey.....	26 do .....	1 50	39 00
do .....	do	M. Blake.....	26 do .....	1 50	39 00
do .....	do	Wm. Pew.....	25 do .....	1 50	37 50
do .....	do	John Barry.....	9 do .....	1 50	37 50
Watchman.....	do	Oscar Sharp.....	31 do .....	1 50	46 50
do .....	do	John McMillan.....	31 do .....	1 20	37 20
do .....	do	John Hanley.....	26 do .....	1 00	26 00

PAY-LIST in duplicate of Persons employed on the Old Welland and Feeder Canal,  
&c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Division No. 4.</i>				\$ cts.	\$ cts.
Carpenter .....	Oct., 1887.	Wm. Cook .....	26 days...	2 00	52 00
do .....	do ...	Jacob Cook .....	20 $\frac{1}{2}$ do ...	1 50	30 75
Assistant ferryman .....	do ...	John Bradley .....	26 do ...	1 50	39 00
Laborer .....	do ...	Wm. Decks .....	25 $\frac{1}{2}$ do ...	1 50	38 25
do .....	do ...	C. Kein .....	26 do ...	1 50	39 00
do .....	do ...	J. Leslie .....	26 do ...	1 50	39 00
do .....	do ...	J. Mehagan .....	26 do ...	1 50	39 00
do .....	do ...	M. Anthes .....	26 do ...	1 50	39 00
do .....	do ...	J. Meyer .....	26 do ...	1 50	39 00
do .....	do ...	G. Petty .....	26 do ...	1 50	39 00
do .....	do ...	Chas. Smith .....	1 do ...	1 50	1 50
do .....	do ...	Hy. Brennen .....	10 do ...	1 50	15 00
do .....	do ...	W. Pringle .....	2 do ...	1 50	3 00
do .....	do ...	S. Wilcox .....	2 do ...	1 50	3 00
do .....	do ...	Jno. King .....	1 $\frac{1}{2}$ do ...	1 50	1 88
do .....	do ...	Thos. Pringle .....	1 $\frac{1}{2}$ do ...	1 50	2 25
do .....	do ...	Jno. Kingston .....	1 do ...	1 50	1 50
Team .....	do ...	Samuel Cook .....	24 $\frac{1}{2}$ do ...	3 50	82 75
do .....	do ...	M. Reeb .....	1 do ...	3 50	3 50

NUMBER of Pay-list, 189. Pay-list in duplicate of Persons employed on the Old Welland and Feeder Canal during the month of October, 1887, to re-building lock gates, also repairing old lock gates, repairing lock on banks, also repairing same, quarrying and boating stones, chargeable to Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter.....	Oct., 1887.	N. Morey, foreman.....	27½ days...	2 75	75 62
do .....	do	P. Shortell.....	26½ do ...	2 00	53 00
do .....	do	S. Radcliffe.....	27½ do ...	2 00	55 00
do .....	do	T. Rapsey.....	26½ do ...	2 00	52 50
Caulker .....	do	G. McLean.....	3 do ...	2 00	6 00
Watchman .....	do	J. W. Boyle.....	31 do ...	1 00	31 00
Team .....	do	Chas. Hill.....	22 do ...	3 50	77 00
Laborer .....	do	Thos. O'Neil.....	27 do ...	2 00	54 00
do .....	do	Robt. Wilson.....	27 do ...	1 50	40 50
do .....	do	Jno. Hemphill.....	26 do ...	1 50	39 00
do .....	do	Geo. Wilson.....	26 do ...	1 50	39 00
do .....	do	Richard Grant.....	24 do ...	1 00	24 00
Scow and quarry man.....	do	Jas. Hamilton.....	26 do ...	2 00	52 00
do .....	do	Arthur Bradley.....	25 do ...	1 50	37 50
do .....	do	Jas. Faywell.....	26 do ...	1 50	39 00
do .....	do	Ab. Bradley.....	27 do ...	1 50	40 50
do .....	do	Jno. Dundas.....	25 do ...	1 50	37 50
do .....	do	John Brennan.....	26 do ...	1 50	39 00
do .....	do	James O. Rose.....	2 do ...	1 50	9 00
do .....	do	Jas. Reynard.....	1 do ...	1 50	1 50
do .....	do	Jerry Langhey.....	19 do ...	1 50	28 50
Team .....	do	C. Penbrook.....	18½ do ...	3 50	64 75
Mason .....	do	Wm. Chandler.....	2 do ...	1 75	3 50
Turner .....	do	Alex. Gault.....	2 do ...	3 00	6 00
Carpenter .....	do	F. T. Walton.....	26½ days...	2 75	72 88
do .....	do	S. R. Bradley.....	26½ do ...	2 00	53 00
do .....	do	D. S. Walton.....	26½ do ...	2 00	53 00
do .....	do	W. H. Dunn.....	26½ do ...	2 00	53 00
do .....	do	E. Smith.....	25 do ...	2 00	50 00
do .....	do	S. J. Hill.....	25½ do ...	2 00	51 50
Mason & Co. ....	do	W. Wilkerson.....	24 do ...	3 00	72 00
Horse and waggons.....	do	F. T. Walton.....	26½ do ...	1 50	39 75
Laborer.....	do	Arthur Bradley.....	22 do ...	1 50	33 00
do .....	do	Pat. Griffin.....	23 do ...	1 50	34 50
Carpenter.....	do	Ira Bessey.....	25 do ...	1 50	37 50
do .....	do	Robt. Harris.....	14 do ...	1 50	21 00
Laborer.....	do	E. Webber.....	12 do ...	1 25	15 00
do .....	do	Wm. Bessey.....	12 do ...	1 25	15 00
do .....	do	Jas. Blott.....	6 do ...	1 25	7 50
do .....	do	Wm. Hamilton.....	6 do ...	1 25	7 50
do .....	do	Jas. Heffrew.....	25 do ...	1 25	31 25
Team.....	do	R. G. Murdy.....	14 do ...	2 50	35 00
Carpenter .....	do	S. J. Hill.....	2 do ...	2 00	4 00
					3,978 48



## ACCOUNTS chargeable to Welland Canal—Renewals and Repairs.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Oct. 1-31...	To Coy Bros., St. Catharines—		
	5 gals. turpentine, at 75c., \$3.25; 135 lbs. putty, at 4c., \$5.40	9 15	
	6 irons metallic oxide, at \$1.50 .....	9 00	
	100 lbs. white lead, \$7.50; 2 kegs cut nails, at \$3.50, \$7.	14 50	
	5 lbs. glue, at 25c., \$1.25; 15 lbs. shingle nails, at 5c., 75	2 00	
	7 pk. finishing nails, at 15c., \$1.05; 7 gross assorted screws, \$2.18 .....	3 23	
	1 doz. axe handles, \$3; 112 lbs. spikes, at 5½c., \$6.16.....	9 16	
	44 gals. raw oil, at 75c., \$33; 4 oil taps, \$4.....	37 00	
	5 lbs. 3 in. cut nails at 15c., 75c.: 2 lbs. 1½ in. cut nails, 25c	1 00	
	20 lbs finished nails at 10c., \$2; ½ doz. car bolts, 10c....	2 10	
	6 pair - trap hinges at 20c., \$1.20; 2 pair T hinges, 30c....	1 50	
	2 pair B. D. rollers at 75c., \$1.50; 100 lbs. red lead, \$4.50.	7 00	
	2 lbs. lamp black, 60c.; 300 lbs. oakum, at 10c., \$30 .....	30 60	
	1 centre bin, 75c.; 1 empty can, 20c.....	45	
			126 69
do 1-31...	James Wilson, Thorold—		
	6 lbs. brimstone, at 15c., 90c.; 1 pair pinchers, \$2.50.....	3 40	
	1 hammer, 50c; 3 lbs. brimstone, 45c .....	95	
	12 lbs. nails, at 4c, 48c.; 1 pair hinges, 15c.; screws, 5c.	68	
			5 03
do 1-31...	Wm. N. Garden, Welland—		
	Paid carting bridge mechanic's tools to Humberstone ...	1 50	
	2 lbs. nails.....	10	
			1 60
Oct. 1-31...	John Mathews, Port Colborne—		
	125 lbs. nails, at 4c., \$5; 15 lbs. yellow ochre, at 5c., 75c.; 150 lbs. white lead, at 7c., \$10.50 .....	16 25	
	7½ gals. boiled oil, at 80c., \$6; 25 wire nails, at 6c., \$1.50; ½ lb. blue, 15 .....	7 65	
	7 pair butts, at 8c., 56c; 3 rim locks, at 40c., \$1.20; 3 knobs, 60c.....	2 36	
	5 gross assorted screws, \$1.52; 2 lbs finishing nails, 16c.; 5 lbs. Venetian red, 25c.....	1 93	
	½ gal. turpentine, 40c.; 24 lights glass, 1.68; 17 lbs. putty, 85c.....	2 93	
	Sand paper, 10c.; 2 files, 20c.; 6 bolts, 25c.; 1 pail, \$1.72.	2 27	
	1 bitt, 26c.; 5½ lbs. hinges, 55c.; chain, 55c.; 2 lbs. B. lumb., 40c.....	1 71	
			35 10
do 7...	Battle & Smyth, Thorold—25 gals. No. 15 white paint, at \$1.90 .....		47 50
do 10...	L. J. White, Buffalo—12 knives made to pattern, at \$2.50..		30 00
	J. G. Demare, Port Dalhousie—		
do 1-31...	Paid freight on barrel paint from Thorold.....	0 35	
do 11...	2 railway tickets and return, also freight on diving apparatus and express charge on package knives from Buffalo.....	5 45	
do 13...	Freight on diving apparatus from Thorold.....	1 00	
			6 80
	Grand Trunk Railway Co., Port Colborne—		
do 1...	Freight on tools to St. Catharines....	0 91	
do 3...	do diving pumps to Thorold.....	1 40	
do 6...	do bar iron from Merriton.....	0 35	
	do bag grass seed from St. Catharines.....	0 35	
do 3...	2 return tickets to Port Dalhousie .....	2 50	
do 12...	Express charges on diving pumps to Thorold.....	4 00	
			9 51
do 1-31...	Robert Foster, St. Catharines—		
	Horse and waggon, 7 days, with the bridge mechanics, at \$2.50.....	17 50	
	Horse and buggy for superintendent, 1 day.....	1 00	
	do do 5 days, at \$1.50.....	7 50	
	do do 3 days, at \$2.50....	7 50	
			33 50

## ACCOUNTS chargeable to Welland Canal—Repairs—Continued.

Date.	Nature of Works.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Oct. 1-31.....	To H. Vanderburgh, Allanburgh—24 railway fares to Port Dalhousie and return, at 70c.....		16 80
	N. Chatfield, St. Catharines—		
July 29...	Fare, Port Colborne and return, \$1.50; hotel bed, 35c...	1 85	
Sept. 20...	Meals (Allanburgh).....	0 50	
do 29...	2 fares, Welland and return.....	1 50	
do 30...	1 fare, Port Colborne and return.....	1 50	
			5 35
Oct. 31...	B. McGrath, Port Dalhousie—6 meals (for Turner) at 25c..		1 50
do 4-5...	Mrs. Jordon, Port Robinson—6 meals, \$1.50; horse feed, 75c., for bridge mechanics doing repairs.....	2 25	2 25
do 1-31...	Charles A. White, Humberstone—		
	27 meals for Diver and Charfield, at 25c.....	6 75	
	Hay and oats for team.....	1 50	
	Hay and oats for team, scow "Sir John".....	2 75	
	2 bush. oats, 80c.; 21½ lbs. beef, \$1.81 (for men and horse on scow "Sir John").....	2 61	
			13 61
do 1-31...	McCleary & McLean, Thorold—		
	1,225 ft. pine, at \$16, \$19.60; 798 ft. pine, at \$17, \$13.57.	33 17	
	333 ft. pine, at \$18, \$5.99; 2,200 ft. pine, at \$30, \$66.....	71 99	
	396 ft. pine, at \$35, \$13.86.....	13 86	
	11,723 ft. oak, at \$25.....	293 08	
	500 ft. moulding, at 1c.....	5 00	
			417 10
do 6...	D. Zimmerman, St. Catharines—44 ft. ¾-in. pine, at \$3 50, \$1.54; 58 ft. moulding, at 1½c., 87c. ....		2 41
	James Wilson, Merritton—		
Oct. 1-31...	212 lbs. castings, at 3½c., \$7.42; 3 lbs. steel, at 20c., 60c.	8 02	
	22 do phosphor bronze, at 45c., \$9.90; 30 lbs. brass nuts, at 30c., \$9 .....	18 90	
	2 auger shanks, \$1; 15 lbs. steeling, 90c.....	1 90	
	53½ hours' time drilling and fitting, &c., at 40c.....	21 40	
			50 22
do 1-31...	James Wilson, Merritton—		
	347 plates repaired, at 2c, \$6.94; 1,358 S. bolts, &c., repaired, at 2½c., \$33.95 .....	40 89	
	694 lbs. new plates, at 4c., \$27.76; 5,776 lbs. new S. bolts, at 5c., \$258.80 .....	286 56	
	32 lbs. steeling, at 6c., \$1.92; 46 lbs. new steel, at 20c., \$9.20.....	11 12	
	121 lbs. Lowmoor iron bolts, at 12c., \$14.52; 40 steel sets, at 10c., \$4.....	18 52	
	CR.	357 09	
	By 24,319 lbs. scrap iron, at ¾c.....	\$182 38	
	600 do brass, at 8c.....	48 00	
		230 38	
			126 71
do 31...	John Bradley, Merritton—		
	Boating, breaking and trimming stone from Humberstone to Lock No. 25, New Canal, 1,556 yards, at \$1.05.....	1,633 80	
	Breaking, trimming and boating stone from Humberstone to Port Colborne, harbor slopes, 613 yds., at 90c.....	551 70	
	CR.	2,185 50	
	By 2 months' hire of scow "Sir Charles," at \$60.....	120 00	
			2,065 50
	J. & R. Miller, St. Catharines, material, as follows, supplied for putting in water service for fire protection to the workshops, store house, dwelling houses and various buildings situated at Port Dalhousie—		
Sept. 1-30...	445 cubic ft. timber for derrick, at 30c.....	133 50	
	602 ft. 3-inch pipe cut to length and threaded, at 48c.....	288 96	
	6 3-inch elbows, at 60c., \$3.60; 4 3-inch tees, at 80c., \$3.20; 1 1½-inch check valve, \$2.75 .....	9 55	

## ACCOUNTS chargeable to Welland Canal—Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Sept. 1-30...	To J. & R. Miller, St. Catharines—		
	10 3-inch gate valves, at \$11.50, \$115; 2 1½-inch gate valves, at \$3, \$6.....	121 00	
	10 3-inch nipples, at 65c., \$6.50; 6 3-inch tees, at 80c., \$4.80; 2 3-inch unions, at \$1.75, \$3.50.....	14 80	
	203 ft. 1½-inch pipe cut to length and threaded, at 20c.....	50 75	
	201 ft. 1-inch pipe, at 10c., \$20.10; 2 3-inch lock nuts, at 50c., \$1.....	21 10	
	2 bushings, 90c.; 2 1½-inch lock nuts, 90c.....	1 80	
	2 1-inch gate valves, at \$1 50, \$3; 1 1-inch nipple, 15c.; 1 1½-inch elbow, 35c.....	3 50	
	1 bushing, 30c.; 1 nipple, 15c.; 1 3-inch tee, 80c.....	1 25	
	125 ft. 3-inch pipe cut to length and threaded, at 48c.....	60 00	
	4 3-inch elbows, at 60c., \$2.50; 3 3-inch elbows, at 60c., \$1.80; 1 3½-inch elbow, 60c.....	4 80	
	2 bushings, \$1.65; 1 union, 50c.; 4 elbows, at 35c., \$1.40; 4 nipples, at 25c., \$1.....	4 55	
	1 tee, 30; 7 3-inch nipples, at 65c., \$4.55; 1 3-inch cross, \$1.10.....	5 95	
	43 ft. 3-inch pipe cut to length and threaded, at 48c.....	20 64	
	31 ft. 2½ do do 42c.....	13 02	
	6 3-inch nipples, at 65c., \$3.90; 2 bushings, 85c.....	4 75	
	2 3-inch elbows, at 60c., \$1 20; 2 do \$1.80.....	3 00	
	102 ft. 3-inch pipe cut to length and threaded, at 48c.....	48 96	
	1 bushing, 40c.; 1 tee, 30c.; 2 locks, \$1.....	1 70	
	2 1½-inch gate valves, at \$2.75, \$5.50; 1 union, 60c.; 1 elbow, 50c.....	6 60	
	80 ft. 1½-inch pipe cut to length and threaded, at 25c.....	20 00	
	4 1½-inch tees, at 30c., \$1.20; 1 bushing, 40c.....	1 60	
	10 3-inch hose connections, at \$1.25, \$12.50; 1 3-inch top valve, \$3.....	15 50	
	Thomas Hastings, St. Catharines, taking down old chimney, cleaning brick, and re-building same and furnishing new material for bridgetender's house, Bridge No. 8—		857 28
Oct. 25-20...	1½ day mason, at \$3.50, \$5.25; 1 day laborer, \$1.50.....	6 75	
	½ day teaming.....	1 25	
	1½ barrel mortar, \$1.50; 90 new bricks, 90c.; 1 thimble, 25c.....	2 65	
do 11-18...	Thomas Hastings, St. Catharines, repairing east wall, lower end Lock 6, making good damages done to same by the steamer "Tecumseh," furnishing necessary plant and material—		10 65
	6½ days for mason, at \$4, \$26; 8½ days for masons, at \$3.50, \$29.75.....	55 75	
	4½ days team, at \$4, \$18; 5½ days derrick, at \$2, \$11.....	29 00	
	4½ days mortar man, at \$2, \$9; 4½ days laborer, at \$1.75, \$7.87.....	16 87	
	27½ feet new coping, at \$1, \$27.50; 6 barrels cement, at 65c., \$9.90.....	37 40	
	2 yards sand, at \$1.50, \$3; use of derrick and tools, \$25.....	28 00	
	Coy Bros, St. Catharines—		167 02
do 1-31...	4 gallons machine oil, at 65c., \$2.60; 2 kegs cut nails, \$1.....	9 60	
	20 lbs. cut nails, at 4c., 80c.; 1 P. H. auger, \$4.50; 14 lights glass, \$1.....	6 30	
	Putty and points, 18c.; 1 bale oakum, \$5; 112 lbs. spike, \$5.60.....	10 78	
	3 gallons raw oil, at 75c., \$2.25; 3 gallons boiled oil, at 80c., \$2.40; nails, 20c.....	4 85	
	11 lbs. tallow, at 10c., \$1.10; 10 lbs. cut nails, 40c.....	1 50	
			33 02



## ACCOUNTS chargeable to Welland Canal—Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Oct. 1-31...	James Wilson, Thorold— 7 files, 75c.; 6 boxes axle grease, at 15c., 90c.....	1 65	
	8 gross screws, at 45c., \$3.60; 22 lbs. nails, at 2½c., 77c.; 4 pair hinges, 40c.....	4 77	
	4 thumb latches, 40c.; 2 gallons lard oil, \$2; glass and putty, 40c.....	2 80	
	450 lbs. spike, at 4c., \$18; 2 paint brushes, \$2; maul handles, 30c.....	20 30	
	19 lbs washers, at 10c., \$1.90; 208 lbs. rope, at 15c., \$31.20; 3 lbs. lath nails, at 5c., 15c.....	33 25	
	Knotting, 25c.; 4 rivet hammers, \$3.40 .....	3 65	
			66 42
do 1-31...	Henry Mussen, Allanburgh— 97 lbs. nails, at 4c., \$3.88; 8 butt hinges, at 20c., \$1.60; files, 55c.; 12 lbs. spikes, 66c.....	6 63	
	2 gallons boiled oil, at 80c., \$1.60; 11 gross screws, at 25c., \$2.25; 1 gross screws, 30c.; 10 lbs. lath nails, 60c.	5 25	
	Door locks and knobs, \$1.25; 54 lbs. nails, at 5c., \$2.70; 2 paint brushes, 14c.....	5 35	
	13 lbs. putty, at 5c., 65c.; glass, \$1.90; brooms, 55c.; 6 pair butts, \$1.20.....	4 30	
	10 gallons roof paint, at \$1.46, \$14; damper, 25c.; wheeling, 25c.....	14 50	
	10 lbs. green paint, at 25c., \$2.50; 2½ ....., at 50c., \$1.25; 3 hinges, 45c.....	4 20	
	Black paint, 35c.; sand paper, 5c.; axe handle, 30c.; 2 barrels, 40c.....	1 10	
	Buttons, 23c.; 8 rolls wall paper, at 12½c., \$1; 20 rolls wall paper, at 7c., \$1.40.....	2 63	
	8 rolls wall paper, at 10c., 80c.; hook and staples, 10c; 45 yards border, at 5c., \$2.25.....	3 15	
			47 11
do 1-31...	James Rolston, Dunnville— 112 lbs. cut spikes, \$5.60; 10 lbs. cut spikes, 40c.....	6 00	
	3 m. s. files, 25c.; 40 lbs. common iron, \$1; 18½ lbs. steel hammer, \$4.63.....	5 88	
	5 lbs. steel nails, 20c.; 4 handles, \$2; 4 lbs. castor oil, 72c 38 lbs manilla rope, at 15c., \$5.70; 1 pick, \$1; 1 handle, 25c.; lock, 5c.....	7 00	
	2 m. s. files, 40c.; 1 m. s. file, 20c.; 1 maul handle, 25c.. 10 yds. drafting paper and express charges .....	0 90 3 85	
			26 55
Oct. 13...	Battle & Smyth, Thorold—10 galls. No. 15 paint.....		19 00
Oct. 4...	John Noble, Dunnville— 1 bush. potatoes, 80c.; 28 lbs. ham, at 14c., \$3.92; 20 lbs. corned beef, at 6c., \$1.20.....	5 92	
	5½ lbs. cheese, at 14c., 97c.; 1 box matches, 15c.; bread, 50c.....	1 40	
	(For scow men taking stone to Dartmouth dam.)		7 34
Aug. & Sept.	Thomas Berrimen, Thorold— 100 bu h. lime, at 25c.....	25 00	
	3½ yds. sand, at \$1.50.....	5 25	
			30 25
Oct. 31...	James Wilson, Merritton— Ironing ice chisels, 800 lbs., at 2c.....	16 00	
	50 lbs. straps, at 5c., \$2.50; making 40 lbs. bars, at 5c., \$2.....	4 50	
			20 50
Oct. 1-30...	587 lbs. plates rep., at 2c., \$11.74; 484 lbs. screw bolts rep., at 2½c., \$12.10.....	23 84	
	18 lbs. rag spikes, at 3c., 54c.; 335 lbs. new plates, at 4c., \$13.40.....	13 94	
	3,356 lbs. new screw bolts, at 5c., \$167.80; 218 lbs. steel- ing, at 6c., \$16.56.....	184 36	
	Ground auger .....	2 00	
			224 14

ACCOUNTS chargeable to Welland Canal, Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Oct. 1-31...	James Wilson, Merritton— 6,313 lbs. castings, at 3½c., \$220.95; 5 lbs. brasses, at 28c., \$1.40.....	222 35	
	99 lbs. brass nuts, at 30c., \$29.70; 10 steel sets, at 10c., \$1	30 70	
	236 hrs. drilling and fitting, at 40c.....	94 40	
	2 new valves, complete, at \$58.....	116 00	463 45
Oct. 1-31...	McCleary & McLean, Thorold— 1 round stick pine.....	25 00	
	1,526 ft. pine, at \$13.50, \$20.60; 5,430 ft. pine, at \$16, \$86.80.....	107 48	
	1,437 ft. pine, at \$17.50, \$25.14; 3,187 ft. pine, at \$18, \$57.37.....	82 51	
	274 ft. pine, at \$20.....	5 48	
	9,221 ft. oak, at \$25.....	230 53	
	12 bunches lath, at 25c., \$3; 3 cedar posts, at 25c., 75c..	3 75	
	20 storm sash for Canal office.....	39 50	494 25
Oct. 25...	W. E. Tench & Son, Chippawa— 500 ft. pine, at \$18, \$9.00; 200 ft. pine, at \$18, \$3.60.....	12 60	
	128 do \$18, \$2.30; 75 do \$18, \$1.35.....	3 65	
	107 do .....	1 92	18 17
Oct. 18...	F. T. Walton, Thorold— Paid expenses for 5 men and team repairing bridge at Chippawa .....	6 00	
do 22...	Railway fare and express, Port Colborne and return.....	1 20	7 20
Oct. 31...	Thomas Grenville, Thorold—31½ days painting bridge tenders' houses at Allanburgh, at \$2 .....		63 00
Oct. 31...	Dickinson & Sness, Humberstone— Advance on account of construction of Canal toll collector's office and Custom house at Port Colborne, as per agreement.....		800 00
			6,352 54

PAY-LIST in duplicate of persons employed on the Dunnville Division of the Welland Canal during the month of October, 1887, to repair the West Pier at Port Maitland, chargeable to Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	Oct., 1887.	Jas. Edgar.....	26 days....	2 00	52 00
do .....	do	R. Mitchell.....	26 do ...	1 50	39 00
do .....	do	John Taylor.....	26 do ...	1 50	39 00
do .....	do	Job. Mathews.....	26 do ...	1 50	39 00
do .....	do	David Cooper... ..	26 do	1 50	39 00
do .....	do	Jas. Crawford.....	26 do ...	1 50	39 00
do .....	do	John McKee.....	26 do ...	1 50	39 00
do .....	do	Freeman Green .....	26 do	1 50	39 00
Laborer .....	do	William Moss.....	19½ do ...	1 25	24 37
do .....	do	Chas. Runyon.....	18½ do ...	1 25	24 37
do .....	do	Wm. Billington.....	18½ do ...	1 25	24 37
Lifting scows.....	do	R. F. Lattimore .....	26 do	1 25	24 37
Scow and men delivering stone..	do	John Trush.....	26 do ...	1 50	39 00
do .....	do	A. McDonald.....	24 do	1 25	30 00
do .....	do	Thos. Bessey.....	26 do	1 25	32 50
do .....	do	Robt. Runchy.....	26 do	1 25	32 50
do .....	do	B. Bennett.....	26 do	1 25	32 50
do .....	do	James Davis.....	26 do	1 25	32 50
do .....	do	Alfred Banks.....	18½ do ...	1 25	23 12
Team towing scow.....	do	Daniel Staid.....	6 do	2 50	15 00
do delivering material.....	do	R. G. Murdy .....	18½ do ...	2 50	46 25
					711 48

### ACCOUNTS chargeable to Welland Canal, Repairs.

Names.	Amount.	Names.	Amount.
	\$ cts.		\$ cts.
Jas. Rolston.....	72 56	B. Baxter .....	112 50
Wittaker Swarty .....	25 75	Wm. Linder .....	45 00
R. F. Lattimore.....	810 00	M. A. Smith.....	273 75
John Mayberrey & Sons.....	104 00	A. M. McDonald.....	2,840 80
Jas. Wilson .....	36 00		
			4,320 36



PAY-LIST in duplicate of Persons employed on the Welland Canal, during the month of November, 1887, to pay for laying new floor on shop and putting on new doors, repairing swing and tow path bridges, hauling, repairing scow out on skids, repairing banks, opening up and clearing out ditches, &c., chargeable to renewals and repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
Inspector, &c.....	Nov., 1887	H. Vanderburgh.....	1 month..	\$ cts. 75 00	\$ cts. 75 00
Carpenter .....	do	G. C. Holmes.....	18 days...	2 25	40 50
do .....	do	Jas. Hindson.....	26 do ...	2 00	52 00
do .....	do	W. M. Jones.....	26 do ...	2 00	52 00
do .....	do	Wm. Patterson.....	26 do ...	2 00	52 00
do .....	do	Alf. Coons.....	26 do ...	2 00	52 00
do .....	do	C. Demare.....	26 do ...	2 00	52 00
do .....	do	Wm. Finlin.....	20 do ...	2 00	40 00
do .....	do	Geo. Anderson.....	5 do ...	2 00	10 00
Team.....	do	Jno. Shultes.....	26 do ...	3 00	78 00
Carpenter and handy man.....	do	Jno. Marshall.....	25½ do ...	2 25	57 38
do .....	do	Wm. Mossip.....	11½ do ...	2 00	23 50
do .....	do	John Doig.....	24½ do ...	1 75	43 31
do .....	do	Robt. Johnston.....	25 do ...	1 75	43 75
do .....	do	Fred. Woods.....	24½ do ...	1 50	36 75
do .....	do	P. Paxton.....	2½ do ...	2 00	5 00
do .....	do	I. Johnston.....	4½ do ...	2 00	9 00
do .....	do	James Keyes.....	4½ do ...	2 00	9 00
do .....	do	Alex. McCullough..	23 do ...	1 50	39 50
Caulker.....	do	R. Marshall.....	24½ do ...	2 00	
do .....	do	Jno. Bowman.....	23½ do ...	2 00	46 50
Painter.....	do	A. W. Impey.....	20 do ...	2 00	40 00
Horse and waggon.....	do	A. Reed.....	26 do ...	1 50	39 00
Watchman.....	do	Oscar Sharp.....	30 do ...	1 50	45 00
do .....	do	Jno. McMillan.....	20 do ...	1 20	36 00
do .....	do	John Hanley.....	26 do ...	1 00	26 00
<i>Division No. 1.</i>					
Laborer.....	do	Con. Read.....	26 do ...	1 75	45 50
do .....	do	F. D. Salvin.....	22 do ...	1 25	33 50
do .....	do	Adam Flood.....	4 do ...	1 50	
do .....	do	Jas. Stiven.....	26 do ...	1 25	32 50
do .....	do	Thos. Hammond.....	14 do ...	1 25	35 50
do .....	do	Wm. Daley.....	12 do ...	1 50	
do .....	do	Wm. Weaver.....	17½ do ...	1 25	21 88
do .....	do	Jno. Yates.....	11 do ...	1 25	13 75
do .....	do	John Hayden.....	11 do ...	1 25	13 75
do .....	do	Thos. Hayden.....	23 do ...	1 25	28 75
do .....	do	Geo. Julian.....	26 do ...	1 50	39 00
do .....	do	Thos. McClelland.....	14 do ...	1 50	21 00
Team.....	do	Joseph Johnston.....	25½ do ...	3 00	76 50
do .....	do	Geo. Read.....	5 do ...	3 00	15 00
Scow man.....	do	Jas. Reynard.....	8 do ...	1 75	14 00
do .....	do	Samuel Fisher.....	8 do ...	1 25	10 00
do .....	do	Angus Perkins.....	8 do ...	1 25	10 00
do .....	do	John McNulty.....	10 do ...	1 25	12 50
Team, towing, &c.....	do	Robt. Hoover.....	12¾ do ...	3 00	38 25
<i>Division No. 3.</i>					
Laborer .....	do	R. A. Borth, foreman.	26 do ...	1 75	45 50
do .....	do	G. A. Jordan.....	24 do ...	1 50	36 00
do .....	do	John Madigan.....	24½ do ...	1 25	30 63
do .....	do	Geo. Brown.....	24½ do ...	1 25	30 63
do .....	do	James Hansel.....	24½ do ...	1 25	30 63
do .....	do	Ben Redfern.....	24½ do ...	1 25	30 63
Team .....	do	John Watson.....	18 do ...	3 00	54 00

PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
<i>Divisions Nos. 3 and 4.</i>				\$ cts.	\$ cts.
<b>Laborer</b> .....	Nov., 1887	Jas. Clancey, foreman	26 days...	1 75	45 00
do .....	do	Hugh Bailey.....	23½ do ...	1 25	29 38
do .....	do	Michael Blake.....	24½ do ...	1 25	30 63
do .....	do	Wm. Pew.....	24½ do ...	1 25	30 63
<i>Division No. 4.</i>					
<b>Laborer</b> .....	do	Wm. Cook, foreman...	26 do ...	1 75	45 50
do .....	do	Jacob Cook.....	26 do ...	1 25	32 50
do .....	do	Wm. Deeks .....	9 do ...	1 50	} 34 75
do .....	do	C. Keen .....	17 do ...	1 25	
do .....	do	Jas. Leslie.....	26 do ...	1 25	32 50
do .....	do	J. Mahagan.....	26 do ...	1 25	32 50
do .....	do	M. Anthes.....	26 do ...	1 25	32 50
do .....	do	G. Pity .....	26 do ...	1 25	32 50
do .....	do	H. Brenen.....	26 do ...	1 25	32 50
do .....	do	J. Moyer .....	26 do ...	1 25	32 50
do .....	do	Wm. Mumis .....	2 do ...	1 00	2 00
<b>Team</b> .....	do	Sam. Cook.....	21½ do ...	3 00	64 50
<b>Assistant Ferryman</b> .....	do	John Bradley, Jr.....	26 do ...	1 50	39 00
<b>Carpenter</b> .....	do	N. Morey, foreman...	28 do ...	2 75	77 00
do .....	do	P. Shortell.....	28 do ...	2 00	56 00
do .....	do	S. Rodcliffe.....	28 do ...	2 00	56 00
do .....	do	T. Rapsey.....	27½ do ...	2 00	55 00
<b>Team</b> .....	do	Chas. Hill.....	23½ do ...	3 00	70 50
<b>Watchman</b> .....	do	J. W. Boyle .....	30 do ...	1 00	30 00
<b>Laborer</b> .....	do	T. O'Neil, foreman ...	27½ do ...	1 75	48 13
do .....	do	Robt. Wilson.....	19 do ...	1 25	23 75
do .....	do	Geo. Wilson.....	26 do ...	1 50	39 00
do .....	do	Wm. Chandler .....	1½ do ...	1 25	1 88
do .....	do	Jno. Himphill.....	1½ do ...	1 25	1 88
do .....	do	Richard Grant.....	14 do ...	1 00	14 00
<b>Carpenter</b> .....	do	F. T. Walton, foreman	28 do ...	2 75	77 00
do .....	do	S. R. Bradley .....	28 do ...	2 00	56 00
do .....	do	D. S. Walton.....	28 do ...	2 00	56 00
do .....	do	E. Smith.....	24 do ...	2 00	48 00
do .....	do	W. H. Dunn.....	28 do ...	2 00	56 00
<b>Mason</b> .....	do	W. Wilkerson.....	4 do ...	3 00	12 00
<b>Laborer</b> .....	do	Jas. Faywell .....	5½ do ...	1 25	6 88
do .....	do	A. Bradley .....	14 do ...	1 25	17 50
do .....	do	Patrick Griffin .....	16 do ...	1 25	20 00
do .....	do	Jas. Gunning.....	6½ do ...	1 25	8 13
do .....	do	Jas. Ward .....	6½ do ...	1 25	8 13
do .....	do	Michael Jordan.....	4 do ...	1 25	5 00
do .....	do	John Brennan.....	3 do ...	1 25	3 75
do .....	do	Wm. Clarke.....	23 do ...	1 25	28 75
<b>Team</b> .....	do	Chas. Murray.....	1½ do ...	3 00	4 50
<b>Horse and waggon</b> .....	do	F. J. Walton.....	27 do ...	1 50	40 50
<b>Laborer</b> .....	do	Jas. Hamilton .....	3 do ...	1 75	5 25
do .....	do	A. Bradley.....	1 do ...	1 75	1 75
<b>Team</b> .....	do	Chas. Tenbrock.....	7 do ...	3 00	21 00
<i>Feeder Canal.</i>					
<b>Carpenter</b> .....	do	Jas. Edgar.....	8½ do ...	1 75	14 88
do .....	do	Ira Bessey.....	10½ do ...	1 50	15 75
do .....	do	Jas. Crawford.....	4 do ...	1 50	6 00
do .....	do	D. Cooper.....	2 do ...	1 50	3 00
do .....	do	Chas. Fritz.....	3 do ...	1 50	4 50
do .....	do	J. Mathews, A. B.....	3½ do ...	1 50	5 25
<b>Painter</b> .....	do	E. F. James.....	7 do ...	1 50	10 50
<b>Laborer</b> .....	do	John Trush.....	8½ do ...	1 50	12 75
do .....	do	E. D. Webber.....	5 do ...	1 25	6 25

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**PAY-LIST in duplicate of Persons employed on the Welland Canal, &c.—Continued.**


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Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
<b>Laborer</b> .....	<b>Nov., 1887</b>	Jas. Heffernan.....	15 $\frac{1}{2}$ days...	1 25	19 38
do .....	do ...	Wm. Bessey.....	11 $\frac{1}{2}$ do ...	1 25	14 38
do .....	do ...	Thos. Bessey.....	5 do ...	1 25	6 25
do .....	do ...	R. Runchey .....	5 do ...	1 25	6 25
do .....	do ...	James Davis.....	5 do ...	1 25	6 25
do .....	do ...	B. Bennett.....	7 $\frac{1}{2}$ do ...	1 25	9 38
<b>Team</b> .....	do ...	M. A. Smith.....	10 $\frac{1}{2}$ do ...	3 00	31 50
do .....	do ...	R. G. Murdy.....	5 $\frac{1}{2}$ do ...	3 00	16 50
					3,524 03

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## ACCOUNTS Chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Nov. 1-3...	To Coy Bros., St. Catharines—		
	100 lbs. C. P. lead, \$7; 2 sash tools, 25c.....	7 25	
	5 gals. turpentine, at 70c., \$3.50; 2 front door locks, \$10	13 50	
	88 lbs. carpet felt, at 5c., \$4.35; 2 bd. paint brushes, \$3.25	7 60	
	2 gross screws, \$1.75; 1 dead lock, 50c.....	2 25	
	1 pair woollen gloves, 60c.; 8 m. s. files, \$3.60.....	4 20	
	6 lights glass, 75c.; 16 lights glass, \$5.60.....	6 35	
	7 boxes glass, \$14; 1 light glass, 10c.....	14 10	
	2 paper brads, 30c.; 2 paper glazier's points, 25c.....	0 55	
	54 lbs. putty, at 4c., \$2.16; 1 gr. shellac, 75c.; 2 paint		
	brushes, \$1.50.....	4 41	
	6 pair bd. hames, \$3.30; 40 car bolts, \$1.20.....	4 50	
	1 box glass, \$2; 5 lbs. washers, 50c.; 2 doz. hook staples,		
	65c.....	3 15	
	16 lights glass, \$1; 2 packages glazier's points, 25c.....	1 25	
	2 gross screws, 75c.; 2 barrels pitch, \$8.....	8 75	
	6 bales oakum, \$33; 1 gal. knotting, \$3.....	36 00	
	50 lbs. carpet felt.....	2 50	
			116 36
do 1-30...	R. A. Abbey, Port Robinson—		
	5 gals. bd. oil, \$5; 1 box axle grease, 15c.....	5 15	
	1 broom, 25c.; 85 lbs. salt, 85c.; 35 lbs. nails, at 5c.,		
	\$1.90.....	3 00	
	Chalk.....	0 10	
			8 25
do 3-10...	W. N. Gardner, Welland—		
	2 files, 25c.; 5 wrought spikes, 25c.....	0 50	
	For teaming.....	0 50	
			1 00
do 1-30...	John Mathews, Port Colborne—		
	2 14 ft. oars, 28 feet.....	3 50	
	3 gals. bd. oil, \$2.40; 1 padlock, 35c.....	2 75	
	10 lbs. venetian red, 50c.; 3 gals. bd. oil, \$2.40; 1 paint		
	brush, 60c.; 1 padlock, 35c.....	3 85	
	1 axe helve, 35c.; 2 lbs. putty, 10c.; 3 lights glass, 21c;		
	1 monkey wrench, \$1.25.....	1 91	
	12 lights glass, \$1.20; 1 package points, 10c.; 3½ lbs.		
	putty, 18c.; 2 doz. door buttons, 50c.....	1 78	
	2 gals. bd. oil, \$1.60; 1 14 ft. oar, \$1.75; 3 lbs. spun		
	yarn, 45c.....	3 80	
	1 barrel salt, \$1; 2 lights glass, 20c.; 1 wood rasp, 35c.;		
	1 lantern, 75c.....	2 30	
	1 bill, 45c.; 1 thumb latch, 13c.; hooks, eyes and staples,		
	18c.....	0 76	
	1 pair hinges, 40c.; 1½ lbs manilla rope, 19c.....	0 59	
			21 24
Oct. 5...	S. P. Gourley, St. Catharines—		
Nov. 30...	21½ lengths stovepipe, \$3.25; 1 elbow, 25c.....	3 50	
	1 taper joint, 20c.; 38 ft. galvanized iron, at 7c, \$2.66;		
	80 lbs. blk. iron, \$2.40.....	5 26	
	1 hoop, \$1.75; 5 ft. 2 in. iron pipe, 90c.; 1 2 in. socket,		
	20c.....	2 85	
	1 head for exhaust pipe, 50c.; 1½ days 2 men making		
	and fitting up, \$6.....	6 50	
	2½' grate and grate rest, \$2.50; 1 taper elbow, 20c.;		
	3 lengths pipe, 60c.....	3 30	
	20 micas, 75c.; 4 hours for 2 men, \$1.50.....	2 25	
	10 ft. 1 in. pipe, 85c.; threads and cutting, 25c.; 2 1½ in.		
	elbows, 40c.; 15 in. nipple, 15c.....	1 65	
	1 bush, 25c.; 1 elbow, 15c.; 1 union, 55c.; 50 ft. pipe,		
	\$2.50; 3 elbows, 15c.....	3 60	
	1 bush, 15c.; 1 bush, 15c.; 1 bush, 10c.; 1 drop elbow,		
	10c.....	0 50	

ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Works.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Nov. 30...	To S. P. Gourley, St. Catharines— 27 ft. pipe, \$3 78; 1 bill top, 50c.; 125 lbs. stove casting, \$10.....	14 28	
	140 micas, \$7; 10 hours time for 2 men, \$4.....	11 00	54 69
do 18...	John Dale, Montreal— 1 American rubber cloth diving dress.....	50 00	
	1 rig.....	0 50	50 50
Sept. 1...	James Thompson, Thorold— Funnel, 15c.; pipe, 15c.; joint pipe, 15c.; elbow, 35c.; 4 micas, 24c.....	1 04	
	13 micas, 65c.; fitting in stoves, 25c.; joint pipe, 15c.....	1 05	
	Damper, 25c.; taper elbow, 25c.; cook stove, \$5; time, 20c.....	5 70	
	Lifter, 16c.; 2 pots, \$1.60; 2 pipes, 30c.; round elbow, 35c.; lamp, 35c.; spout in order, 15c.....	2 90	
	Railway lamp and oiler, 35c.; 50-ft. trough, at 10c., \$5; 23-ft. conductor, at 10c., \$2 30; 6 3-in. elbow, 90c.	8 55	
	28 ft. 2-in. conductor, at 8c., \$4.24; 3 elbows, 39c.; 6 sheets tin, 60c.....	3 23	
	1½ hours time, 2 men, repairing old pipe.....	0 75	
	10 ft. 3 in. cond. pipe, \$1; 5 elbows, 75c.; coal, solder and acid, 40c.....	2 15	
	7½ hours repairing trough and cond. pipe, at 25c.....	1 88	
	Repairing 2 lamps, \$2.50; lining sink, \$2; repairing cond. pipe, 40c.....	4 90	
	30 ft. 1½ in. iron pipe, at 15c., \$4 50; 3 elbows, 45c.; 3 ft. galv. pipe, 30c.....	5 25	
	3 hours for 2 men.....	1 50	38 90
Nov. 31...	Arch. McIndoe, Thorold— 2 new sheeves for new block.....	3 00	
	Repairing block.....	1 00	4 00
do 1-30...	Robert Foster, St. Catharines— Horse and buggy.....	1 00	
	do 2 days.....	5 00	
	do 5½ do.....	7 50	13 50
Sept. 23...	Wm. J. McCoppin, Welland—16 meals, at 25c., \$4; horse feed, \$1.75.....	5 75	
do 1-30...	H. Vanderburgh, Allanburgh—24 railway fares, Port Dal- housie and return, 70c.....	16 80	
Oct. 15...	W. A. Bonaberg, Port Colborne—Building chimney higher, furnishing brick and mortar over house.....	5 00	
Dec. 1...	John Battle, Thorold—10 cords stone, at \$4.50.....	45 00	
Nov. 30...	B. McGrath, Port Dalhousie—4 loads manure.....	4 00	
do 30...	J. & R. Miller, St. Catharines— 30½ squares heavy iron roofing with tarred felt for same, at \$4.80.....	145 20	
	Putting same on octagon tower and round tank and roof, at 75c.....	22 69	
	1 duplex steam pump with expanding pistons, soft rubber valves, all complete, including fixtures.....	190 00	357 89
do 1-18...	Buffalo Rubber Co., Buffalo— 3 prs. men's tight boots, at \$3 80.....	11 40	
	6 do hip boots, at \$3.80.....	22 80	
	6 do short boots, at \$3.25.....	19 50	53 70
do 17...	Grand Trunk Railway Co., Port Colborne— Freight as per original.....	3 90	
	Express charges.....	0 25	4 15

ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Nov. 30...	To D. G. Rowan, St. Catharines—Hollow quoin coping, 6 ft. 6 in. x 6 ft. 9 in. x 2 ft.=87 ft. 9 in. x 2 ft.=175 ft. 6 in., \$1.25.....		219 37
do 5...	To Dickinson & Sness, Humberstone— Building canal toll collector and customs office, Port Colborne..... 1 outside door and frame complete..... 50 feet wainscoting, 3 feet high, at 20c..... 347 do 4 do 25c..... 20 pieces, 2 x 4 x 14 = 187, for partitions, at \$16..... 1 inside door and frame complete..... 136 yards painting, 3 coats, at 25c..... 7 transom lifts, at \$1.25, \$8.75; 4 transom comp., at \$2.50, \$10..... 43 feet double verandah..... 29 days extra work on wainscoting, hanging transoms and door, at \$2.25..... Ventilator flue for sink, \$4; 2,000 brick, at \$7, \$14..... Laying 3,600 extra brick in vault..... Changing stovepipe hole, \$3; door cap stone, \$3.75..... Bricking up doorway in baggage room..... Cut stone for base of verandah..... Extra labor in piers, \$4; 1 truss comp. in, \$25.....	3,280 10 9 00 10 00 86 75 2 99 8 50 34 00 18 75 141 90 65 25 18 00 18 00 6 75 2 00 6 00 29 00	
	Cr.	3,736 89	
	By 289 feet base, and labor on same, at 9c.....\$ 26 01 50 do do 5c..... 2 50 1 stairs, \$15; 1 counter, customs house, \$40..... 55 00 Cash, \$1,000; Aug. 23, by cash, \$1,500..... 2,500 00 do ..... 800 00 84 yds. plastering, at 10c..... 16 80		
July 22...		3,400 31	
Nov. 24...			336 58
do 30...	Mathew Flannery, Thorold— Painting and lettering 2 signs, door letters..... do re-lettering 2 signs.....	18 00 9 00	27 00
do 8...	Thomas Hastings, St. Catharines—Mason time rebuilding stone pier at Port Dalhousie, gate yard building— 1½ days 2 masons, at \$1.50..... Horse and waggon, \$1.25; 1 barrel cement, \$1.50.....	5 25 2 75	8 00
do 1-30...	James Wilson, Merritt— 1,301 lbs. castings, at 3½c..... 28 lbs. new steel, at 20c..... 1 lb. brass..... 34½ hours, fitting and drilling, at 40c..... 496 lbs. screw bolts repaired, at 2½c..... 476½ lbs. plates and bands, at 4c..... 2,344 lbs. new screw bolts, at 5c..... 37 lbs. drills and chisels, at 10c..... 33 lbs. new steel, at 20c..... 5 hours' time, at 40c..... 17½ lbs. spikes, at 35c..... 145 lbs. rag bolts, at 3c.....	45 53 5 60 0 30 13 80 12 40 19 06 117 20 3 70 6 60 2 00 6 13 4 35	236 67
	Old Welland and Feeder Canal.		
Nov. 1-30...	To Coy Bros., St. Catharines— 7 boxes glass, at \$2, \$14; 79 lbs. putty, at 4c., \$3.16; 7 doz. iron bolts, \$1.05..... 20 lbs. steel wire rope, \$3.60; 1 lb. whiting, 5c.; 4 kegs cut nails, at \$3.50, \$14.....	18 21 17 65	



**Accounts chargeable to Welland Canal—Repairs—Continued**

Date.	Nature of Work.	Amount.	Total.
1887.	To Coy Bros., St. Catharines—	\$ cts.	\$ cts.
Nov. 1-30...	1 piece chain, 50c.; 1 paper points, 10c.; 2 sheets sand paper 4c.....	0 64	
	11 gals. boiled oil, \$3; 1 gal. turpentine, 75c.; 2 gold thimbles, 50c.....	4 25	
	$\frac{1}{4}$ gal. mixed paint, 40c.; $\frac{1}{4}$ gal. mixed paint, 3X, 75c.....	1 15	
	2 pair double acting hinges, at \$2.75 .....	5 50	
	$\frac{1}{4}$ gal. mixed paint, 3X .....	0 75	
			48 15
do 1-30...	James Wilson, Thorold—		
	25 lbs. putty, at 5c.; \$1.25; 6 rim locks, at 70c., \$4.20; 6 knobs, at 15c., 90c.....	6 35	
	1 hank marine, 25c.; 3 padlocks, at 40c., \$1.20; 1 staple, 5c.....	1 50	
	5 lbs. nails, 18c.; 2 thumb latches, 20c.; 1 pair hinges, 15c.; 3 thumb latches, 30c.....	0 83	
	1 gross screws, 4 c.; 6 pair hinges, at 15c., 90c.; 1 gross screws, 45c.....	1 75	
	1 paper points, 8c.; 25 lbs. manilla rope, at 15c., \$3.75; 2 pair S. hinges, 30c.....	4 13	
	15 lbs. manilla rope, at 15c., \$2.25; sand paper, 5c.; nails, \$1.50; 1 can drop black, 35c.....	4 15	
	50 lbs. bolts, at 5c., \$2.50; 1 doz. files, \$1.20; $\frac{1}{4}$ doz. files, \$1.50; $\frac{1}{4}$ doz. washers, 15c.....	5 35	
	1 lantern, 75c.; 1 gal. coal oil, 25c.; hooks and staples, 15c.; 100 lbs. nails, \$3.50.....	4 60	
	930 lbs. spikes, at 5c., \$46.50; 4 door bolts, 50c.; 3 lbs. nails, 12c.; 24 lbs. chain, \$1.20.....	48 32	
	80 rolls wall paper, at 12 $\frac{1}{2}$ c.....	10 00	
			86 98
do 1-30...	Henry Mussen, Allanburgh—		
	1 hook, 5c.; matches, 13c.; 1 roll wall paper, 13c.....	0 31	
	7 lbs. whiting, 25c.; $\frac{1}{4}$ lb. glue, 13c.; 3 lights glass, 21c. 23 yards border, at 5c., \$1.15; 4 rolls wall paper, at 7c., 28c.....	0 59	
		1 43	
do 1-30...	Condon & Hall, Dunnville—		2 33
	1 gal. raw oil, 75c.; 1 gal. turpentine, 80c.; 3 lbs. putty, 12c.....	1 67	
	5 sheets sand paper, 5c.; 25 lbs. whiting, 75c.; 2 lbs. glue, 45c.....	1 25	
	1 gal. varnish, \$2.75; ultra-marine blue, 20c.; 2 lbs. gammy, 35c.....	3 30	
	$\frac{1}{4}$ lb. lamp black, 15c.; 1 lb. venetian red, 15c.; 3 lbs. chrome yellow, 75c.....	1 05	
	50 lbs. white lead, \$3.50; 1 lb. patent dryer, 15c.; 1 lb. English vermilion, 50c.....	4 15	
	10 lbs. zinc white.....	0 90	
			12 32
do 1-30...	James Rolston, Dunnville—		
	2 panes glass, 12x14, 16c.; 1 sledge handle, 25.....	0 41	
	Castor oil, 18c.; 267 lbs. round iron, \$6.68.....	6 86	
	C. M. S. files, \$1.20; coil chain, 10c.....	1 30	
			8 57
do 1-30...	McCleary & McLean, Thorold -		
	516 feet pine, at \$16, \$8.26; 800 feet pine, at \$17.50, \$14 482 do 25, \$12.05; 169 do 35, \$5.91..	22 26	
	90 feet moulding, at $\frac{1}{4}$ c., 68c.; 406 feet moulding, at 1c., \$1.06.....	17 96	
	50 feet moulding, at 2c., \$1; 16 feet moulding, at 3c., 48c.....	4 74	
	70 feet moulding, at 4c.....	1 48	
	Sawing row locks, 50c.; 4 men, at 35c., \$1.40; 2 urns, at 25c., 50c.....	2 80	
	1 bracket, 20c.; 175 pickets, at 5c., \$5.25; 8 cedar posts, \$2.....	2 40	
	Band sawing, 25c.; 6 sashes, \$2.25; 1 window, 75c.....	7 45	
	410 feet piling, at 15c.....	3 25	
		61 50	
			123 84

ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Oct. 7...	To James O. Rose, Humberstone— ½ lb. tea, 30c.; sugar, 25c.; 6 lbs. butter, \$1.50; bread, 50c ½ gallon oil, 15c.; rope, 50c., (for men boarding on repairing scow).....	2 55 0 65	3 20
Nov. 30...	J. W. Keating, Agent, Liverpool and London and Globe Ins. Co., St. Catharines—Premium on insurance policy, Government lifting scow.....	.....	20 00
do 30...	Geo. Killins, Dunnville— 3 cant hooks and handles, at 40c..... Recutting 6 cross cut saws, at 75c..... 3 new sides for wheelbarrows, at 50c..... 2 pair white ash oars, \$3; 3 sledge handles, 60c.....	1 20 4 50 1 50 3 60	10 80
do 26...	R. G. Murdy, Dunnville—4 cords stone, at \$4.50.....	.....	18 00
do 30...	A. H. Bradley, Merritton—430 yards stone for repairing apron above dam, at \$1.....	.....	430 00
do 30...	Thomas Grenville, Thorold—32 days painting, glazing, and papering lock tenders' houses, Lock 15 to Allanburgh, at \$2.....	.....	64 00
do 15...	Geo. Gibson, P.L.S., St. Catharines— Survey Mrs. Marr's property, part lot 222, Thorold Town- ship.....	5 00	
do 18...	Expenses, fare on cars and hotel bill.....	1 00	
do 1-21...	Plan of Mrs. Marr's property.....	5 00	
	Taking measurement of Mrs. W. Houston's lot, St. Catharines, at Niagara St. Bridge, and making plan of same.....	7 00	18 00
Oct. 1...	James Hamilton, Merritton— Paid 2 men 1 day each for loading scow with stone, at \$1.50.....	3 00	
	½ cord wood, \$2; bread and cabbage, 50c. (For board- ing men).....	2 50	5 0
do 15...	W. A. Walker, Thorold—8 yards sand, at \$1.25 (For Allanburgh houses).....	.....	10 00
Oct. 21-25...	To Welland Vale Manufacturing Co., St. Catharines— 2 wedges and repairing..... 314 ft. white ash, at \$30 per M.....	1 75 9 42	11 17
Nov. 1-30...	James Wilson, Merritton— 705 lbs. bolts repaired, at 2½c., \$17.62; 15 lbs. rag bolts, at 3c., 75c..... 425 plates and bands, at 4c., \$17.00; 1,906 screw bolts, at 5c., \$94.30..... 39 ft. new chain, at 8c., \$3.12; 59 lbs. new steel, at 20c., \$11.80.....	18 07 112 30 14 92	145 29
do 1-30...	James Wilson, Merritton— 2,040 lbs. casting, at 3½c., \$71.40; 55 lbs. brasses, at 30c., \$16.50..... 58 hours drilling and fitting.....	87 90 23 20	111 10

ACCOUNTS chargeable to Welland Canal—*Repairs—Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Nov. 1-30...	McCleary & McLean, Thorold— 1,000 ft. pine, \$10; 56 ft. pine, at \$13.50, 75c.; 2,816 ft. pine, at \$16, \$45.06.....	55 81	
	125 ft. pine, at \$17.50, \$2 19; 9008 ft pine, at \$18, \$162.14; 64 ft. pine, at \$20, \$1.28.....	165 61	
	120 ft. pine, at \$25, \$3; 88 ft. pine, at \$35, \$3 08.....	6 08	
	3,405 ft. oak, at \$25, \$85.13; 952 ft. oak, at \$27, \$25.70; 24 ft. oak, at \$28, 67c.....	111 50	
	8 cedar posts, at 25c., \$2; 3 oak posts, 75c.; 1 sash, 32c.; 2 cellar sashes, 70c.....	3 87	
			342 87
do 1-30...	P. Coffrey, St. Catharines—Use of roadway to hydraulic race.....		10 00
			3,110 47

PAY-LIST in duplicate of persons employed on the Welland Canal during the month of December, 1887, to pay for furnishing new store shed, Port Dalhousie, laying up repair scows, hauling out scow "Sir Charles" and blocking her up, constructing new ditches and clearing out old ditches, &c., chargeable to Renewals and Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Inspector.....	Dec., 1887	H. Vanderburgh.....	1 month..	75 00	75 00
Carpenter.....	do	G. C. Holmes, foreman	27 days..	2 25	60 75
do	do	Wm. M. Jones.....	13 do	2 00	26 00
do	do	Jas. Hindson.....	14 do	2 00	28 00
do	do	Wm. Patterson.....	14 do	2 00	28 00
do	do	C. Demare.....	13 do	2 00	26 00
do	do	Alf. Coons.....	27 do	2 00	54 00
do	do	Geo. Anderson.....	1½ do	2 00	3 00
Team.....	do	John Shultes.....	13 do	3 00	39 00
Watchman.....	do	Oscar Sharp.....	31 do	1 50	46 50
do	do	John McMillan.....	31 do	1 20	37 20
do	do	John Hanley.....	15 do	1 00	15 00
Carpenter and handy man.....	do	J. Marshall, foreman	21 do	2 25	47 25
do	do	Wm. Mossip.....	13 do	2 00	26 00
do	do	John Paxton.....	2 do	2 00	4 00
do	do	R. Marshall.....	1½ do	2 00	3 00
do	do	John Bowman.....	1½ do	2 00	3 00
do	do	R. Johnston.....	13 do	1 75	22 75
do	do	John Doig.....	11 do	1 75	19 25
do	do	John House.....	2 do	1 75	3 50
do	do	Isaac Johnston.....	10½ do	1 75	18 38
do	do	Fred Woods.....	15 do	1 50	22 50
do	do	Geo. Shellus.....	4 do	1 50	6 00
do	do	Edward Newall.....	9 do	1 50	13 50
do	do	Samuel Houston.....	3 do	2 00	6 00
Painter.....	do	Ald. Impey.....	20½ do	2 00	41 00
Team.....	do	Wm. McNulty.....	2 do	3 00	6 00
do	do	Robt. Hooper.....	2 do	3 00	6 00
Laborer.....	do	Conl. Read.....	27 do	1 75	47 25
do	do	F. D. Salvin.....	25 do	1 25	31 25
do	do	Adam Flood.....	25 do	1 25	31 25
do	do	James Stiven.....	25 do	1 25	31 25



PAY LIST in duplicate of persons employed on the Welland Canal, &c.—*Continued.*

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
Laborer .....	Dec., 1887.	Thomas Hammond..	13 days ...	1 50	} 34 50
do .....	do	Wm. Daley.....	12 do ...	1 25	
do .....	do	John Gates.....	21 do ...	1 25	26 25
do .....	do	Thomas Hayden.....	25 do ...	1 25	31 25
do .....	do	Peter Paxton.....	10 do ...	1 25	31 25
do .....	do	John McGeachie.....	12 do ...	1 25	12 50
do .....	do	Robt. Secord.....	12 do ...	1 25	15 00
do .....	do	Thos. McClelland.....	12½ do ...	1 25	15 63
do .....	do	James Whitten.....	12 do ...	1 25	15 00
do .....	do	John Cushman .....	11 do ...	1 25	15 00
do .....	do	Samuel Hopkins.....	12 do ...	1 25	13 75
do .....	do	Conl. German.....	13 do ...	1 25	16 25
do .....	do	Wm. Altoft .....	13 do ...	1 25	16 25
do .....	do	Chas. Newbold.....	12½ do ...	1 25	15 63
do .....	do	Michael Hayden.....	13 do ...	1 25	16 25
do .....	do	Wm. Reid.....	12 do ...	1 25	15 00
do .....	do	Thos. Nelson.....	13 do ...	1 25	16 25
do .....	do	Henry Hare .....	13 do ...	1 25	16 25
do .....	do	James Gragan.....	7 do ...	1 25	8 75
do .....	do	Geo. Julian .....	15 do ...	1 50	22 50
Teams (2).....	do	James Johnston .....	30½ do ...	3 00	90 75
do .....	do	George Reid.....	10½ do ...	3 00	30 75
<i>Division No. 4.</i>					
Carpenter.....	do	Wm. Cook, foreman..	26 days...	2 00	52 00
Laborer .....	do	Jacob Cook.....	12 do ...	1 25	15 00
do .....	do	Wm. Deeks.....	3½ do ...	1 25	4 38
do .....	do	J. Moyer.....	3½ do ...	1 25	4 38
do .....	do	J. Leslie.....	1 do ...	1 25	1 25
do .....	do	H. Brennan.....	1 do ...	1 25	1 25
Assistant at ferry.....	do	Jno. Bradley .....	19 do ...	1 50	28 50
Team .....	do	Samuel Cook.....	5 do ...	3 00	15 00
					1,439 73

PAY-LIST in duplicate of Persons employed on the Old Welland and Feeder Canal during the month of December, 18 7, to pay for re-building barn and building drive house at end of same, at Canal office; cutting ice from banks, hydraulic race, and opening up ditches, chargeable to Repairs.

Capacity.	When Employed	Names.	Time.	Rate.	Amount.
				\$ cts.	\$ cts.
Carpenter .....	Dec., 1887	N. Morey, foreman.....	28 days...	2 75	77 00
do .....	do	P. Shortell.....	24 <sup>3</sup> / <sub>4</sub> do ...	2 00	49 50
do .....	do	S. Radcliffe.....	24 <sup>3</sup> / <sub>4</sub> do ...	2 00	49 50
do .....	do	T. Rapsey.....	24 <sup>3</sup> / <sub>4</sub> do ...	2 00	49 00
do .....	do	Wm. Chandler.....	14 <sup>1</sup> / <sub>2</sub> do ...	1 50	21 75
Team.....	do	Chas. Hill.....	19 <sup>1</sup> / <sub>2</sub> do ...	3 00	58 50
Watchman.....	do	J. W. Boyle.....	31 do ...	1 00	31 00
Laborer .....	do	Thos. O'Neil, foreman.	28 do ...	1 75	49 00
do .....	do	Robt. Wilson.....	15 <sup>1</sup> / <sub>2</sub> do ...	1 25	19 38
do .....	do	Jno. Hemphill.....	11 <sup>1</sup> / <sub>2</sub> do ...	1 25	14 38
do .....	do	John Weaver.....	1 do ...	1 25	1 25
do .....	do	A. W. Bradley.....	5 <sup>3</sup> / <sub>4</sub> do ...	1 25	7 19
do .....	do	T. Sullivan.....	5 do ...	1 25	6 25
Carpenter .....	do	F. T. Walton, forem'n	27 do ...	2 75	74 25
do .....	do	S. R. Bradley.....	19 do ...	2 00	38 00
do .....	do	D. S. Walton.....	15 do ...	2 00	30 00
do .....	do	Ed. Smith.....	7 do ...	2 00	14 00
do .....	do	W. H. Dunn.....	21 do ...	2 00	42 00
Laborer .....	do	Wm. Clarke.....	5 <sup>1</sup> / <sub>2</sub> do ...	1 25	6 88
do .....	do	A. Brad'ey.....	6 <sup>1</sup> / <sub>2</sub> do ...	1 25	8 13
do .....	do	P. Griffin.....	5 do ...	1 25	6 25
do .....	do	R. Pew .....	4 do ...	1 25	5 00
do .....	do	J. Sullivan .....	1 do ...	1 25	1 25
do .....	do	T. Johnson.....	1 do ...	1 25	1 25
Mason.....	do	Wm. Martin.....	2 <sup>1</sup> / <sub>2</sub> do ...	3 00	7 00
Team.....	do	John Coyle.....	3 do ...	3 00	9 00
Horse and waggon.....	do	F. T. Walton.....	7 do ...	1 50	10 50
Watchman, hydraulic race.....	do	F. R. Brownlee.....	6 do ...	1 50	9 00
<i>Dunnville.</i>					
Laborer .....	do	James Edgar.....	14 do ...	1 75	24 50
do .....	do	Ira Bessey.....	4 do ...	1 50	6 00
do .....	do	John Thrush.....	14 do ...	1 25	17 50
do .....	do	Jas. Heffern.....	11 do ...	1 25	13 75
Team.....	do	R. G. Murdy.....	8 do ...	3 00	24 00
do .....	do	Mrs. Jas. Wilson.....	2 do ...	1 00	2 00
					2,223 69

## Accounts chargeable to Welland Canal, Repairs.

Date.	Nature of Work.	Amount.	Total.
		\$ cts.	\$ cts.
1887.			
Dec. 1-31...	To Coy Bros., St. Catharines—		
	5 galls. boiled oil, at 75c., \$3.75; 2 galls. turpentine, at 75c., \$1.50.....	5 25	
	1 qr. sand paper, 30c.; 45 lbs carpet felt, at 5c., \$2.25..	2 55	
	4 lbs. ultra marine blue, at 50c., \$2; ½ doz. shovels, at \$1.4, \$7.....	9 00	
	5 lbs. drop black, \$1.25; 1 carpenter's lock, \$1.25.....	2 50	
	1 night latch, Yale, \$2.50; 1 store door lock, \$1.50. ....	4 00	
	2 pc. butts, 38c.; 1 doz shovels, \$14.....	14 38	
	½ doz. M. S. files, at \$5.20, \$2.60; 2 packages cut tacts, 10c.....	2 70	
	2 scrubbing brushes.....	0 75	
			41 13
do 1-31...	S. P. Gourlay, St. Catharines—		
	6 ½-inch elbows, 30c.; 2 ¾-inch elbows, 10c.; 2 ¾-inch sockets, 10c.....	0 50	
	2 ¾-inch sockets, 10c.; 14 ¼-inch sockets, 60c.; 2 ¾-inch nipples, 10 cts .....	0 80	
	14 ft. gas pipe, 60c.; 3 ft. ¾-inch pipe, 18c.; 1 2-inch elbow, 25c.; 2 2-inch nipples, 40c.....	1 43	
	1 2-inch pipe, 54c.; 10 hours for 2 men, \$4 50.....	5 04	
	1 2-inch galvanized valve, \$3; 1 2-inch tee, 30c.; 1 2-inch bushing, 20c.; 1 2-inch unions, 55c.....	6 05	
	11 ft. 2-inch pipes, at 18c., \$1.98; 118 ft. 1-inch pipe, at 10c., \$11.80; 133 ft ¾ inch pipes, at 9c., \$11.97.....	25 75	
	132 ft ¾-inch pipe, \$10.56; 497 ft. ¾-inch pipe, at 7c., \$34.79; 3 2-inch tees, 90c.....	46 25	
	10 1-inch tees, at 15c., \$1.50; 15 ¾-inch tees, \$1.50; 6 ¾-inch tees, at 10c., 60c.....	3 90	
	2 2-inch sockets, at 20c., 40c.; 10 1-inch sockets, at 12c., \$1.20; 8 ¾-inch sockets at 10c., 80c.....	2 40	
	2 ¾-inch sockets, 12c.; 13 Universal joints, at 60c., \$7.80; 8 single, at 50c., \$4 .....	11 92	
	3 2-inch elbows, 75c.; 15 1-inch elbows, at 15c., \$2.25; 10 ¾-inch elbows, \$1.....	4 00	
	2 ¾ inch elbows, 10c.; 2 2-inch unions, \$1.10; 3 1-inch unions, 90c.....	2 10	
	2 ¾-inch union, 50c.; 2 1-inch plugs, 30c.; 48 locks, \$15.30.....	16 10	
	18 pipe clips, at 10c., \$1.80; 34 burners and cap, \$4.08. ..	5 88	
	1 1-inch cross, 25c.; 28 lbs. lead pipe, at 10c., \$2.80; 2 lamps, \$15 .....	18 05	
	14 lbs. castings, \$1.12; 4 hours' time, \$1.20.....	2 32	
			152 49
do 31...	Richard Howse, St. Catharines—		
	1 smoke stack, \$3.50; fitting up, 50c.....	4 00	
	Repairing sink.....	0 50	
	6 joints pipe, 45c.; 1 elbow, 15c .....	0 60	
	10 square roofing, at \$5, \$50; 45 ft. ridge pole, at 10c., \$4 50.....	54 50	
	1 round elbow.....	0 35	
			59 95
do 1-31...	James Wilson, Thorold—		
	1 pr. strap hinges, 15c.; 2 padlocks, 60c.; 2 chains, 50c.	1 25	
	1 chain, 75c.; 1 lock, 30c.; 6 locks, at 15c., 90c.....	1 45	
			2 70
do 1-31...	Henry Mussen, Allanburgh—		
	1 lb. glue, 25c.; 3 rolls paper, 30c.; 18 yds. border, at 4c., 72c.....	1 27	
	1 padlock.....	0 35	
			1 62
Nov. 29...	W. N. Garden, Welland—		
	Paid as per freight.....	0 35	
	1 patent lock.....	0 90	
			1 25



ACCOUNTS chargeable to Weiland Canal—Repairs—Continued.

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Oct. 1-31...	To John Mathews, Port Colborne—		
	1 pkg. brads, 10c.; 1 lb. B. lumb., 75c.; 1 pkg. clouts, 20c.; 1 yd. duck, 30c.....	0 85	
	1 pt. lard oil, 15c.; 1 lb. manilla, 13c.; 4 lb. staples, 8c.; 1 lb. putty, 5c.....	0 41	
	1 rim lock, 10c.; 1 light glass, 4c.; 1 padlock, 35c.....	0 79	
Dec. 13-31...	5 lbs. putty, 25c.; 1 gimlet, 10c.; 1 grs. screws, 35c.; 10 lbs. F. nails.....	1 50	
	2 grs. screws, 94c.; 1 grs. screws, 38c.; 1 broom, 30c.....	1 62	
	24 sheets sandpaper, 45c.; 1 grs. screws, 94c.; 10 lbs. nails, 50c.....	1 89	
	1 grs. screws, 38c.; 1 grs. screws, 47c.; 2 pr. T hinges, 30c.....	1 15	
	2 thumb latches, 25c.; 2 doz. screws, 8c.; 5 lbs. white lead, 50c.....	0 83	
	1 can yellow ochre, 10c.; 1 paint brush, 10c.; knotting, 10c.; 2 galls. boiled oil, \$1.60.....	1 90	
	25 lbs. white lead, \$1.88; 1 lb. yellow ochre, 4c.; 1 paint brush, \$1.10.....	3 02	
	¼ cord wood, \$1.25; ¼ lb. yellow ochre, 2c.; 1 lb. glue, 40c.....	1 67	
	2 door springs, 40c.; 2 door springs, \$1.20; 1 pr. butts, 45c.....	2 05	
	1 stub key, 15c.; 1 key file, 10c.; 1 ton stove coal, \$6.50..	6 75	
	1 doz. sheets sandpaper, 20c.; 2 lbs. glue, 80c.; 2 pkgs. brads, 25c.....	1 25	
	10 lbs. 5 in. nails, 80c.; 1 stamp, 60c.; 1 grs. screws, 25c.	1 65	
	8 cupboard catches, 80c.; 1 doz. 2 in. butts, 90c.; 3 lbs. nails, 12c.....	1 82	29 15
Dec. 31...	Henry Jarvis, St. Catharines—		
	Rent of canvas for Lock 19.....	5 00	
	Canvas, leather, buckles and laborer.....	3 00	
	Laborer making diving suit outline.....	2 25	
	Repairing flag, \$1.50; 3 yds. bunting, 90c.....	2 40	12 65
do 1-31...	E. Riddle & Son, St. Catharines—		
	Repairing roof at canal office.....	4 75	
	778 ft. 6 in. sill, at 20c.....	155 60	
	1 6 in. elbow.....	0 60	160 95
do 1-31...	James Wilson, Merritton—		
	1,133 lbs. new castings, at 3½c.....	39 66	
	111 screw bolts, at 5c.....	5 35	
	2 hours' time.....	0 80	
		46 01	
	LESS—800 lbs. scrap iron, at ½c.....	6 00	40 01
do 1-31...	James Wilson, Merritton—		
	188 lbs. bolts repaired, at 2½c.....	4 70	
	125 lbs. plates, at 4c., \$5; 1,161 lbs. screw bolts, at 5c., \$58.05.....	63 05	
	5 lbs. steel work, at 10c., 50c.; 7 lbs. new steel, \$1.40..	1 90	
	6 hours' time, at 40c.....	2 40	72 05
Oct. 27...	Paul Smith, Port Dalhousie—		
	15 micas, 90c.; repairing diver's helmet, 50c.....	1 40	
	Repairing diver's helmet.....	0 50	1 90
Dec. 31...	Chatfield & Neelon, St. Catharines—		
	Fitting up Furnace for Office, Port Colborne—		
	1 No. 14 Pease Economy steel plate furnace.....	150 00	
	2 12 by 18 circular-top registers, \$10.40; frames, \$4.60	15 00	
	2 10 by 14 do and frames, black, at \$4.10	8 20	
	3 8 by 12 do do gold, at \$2.85	8 55	

ACCOUNTS chargeable to Welland Canal—Repairs—*Continued.*

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Dec. 31...	To Chatfield & Neelon, St. Catharines— Fitting up Furnace for Office, Port Calborne— 1 12 by 12 square register, \$6; frame, \$2.40..... 3 8 by 12 register boxes, circular top, at 75c..... 2 12 by 18 do do \$1..... 3 8 by 12 bull-head bottoms for register boxes, at 60c..... 2 10 by 14 register boxes, circular top, \$1.70; 1 12 by 15 1 12 by 18 bull-head bottom for register box..... 4 9-in. collars, \$1; 3 10-in. collars, 90c..... 2 7-in. heavy galvanized iron elbows, rounded..... 78 lbs. galvanized iron smoke-pipe and cold air duct... 6 sheets tin, 20 by 28, \$1 02; 35 sheets tin, 14 by 20, \$2.80 4 10-in. elbows, \$2.40; 7 9-in. elbows, \$3.85..... 2 10 by 14 circular-top extension register box and lining 5 tin collars, \$1.25; 68 ft. 9 in. tin pipe, at \$19..... 55 ft 10 in. tin pipe, \$16.50; 1 yard wove wire, 30c... Cement, 50c.; 10 lbs. solder, \$3; 5 bush. charcoal.... 10½ days' time, 1 man, at \$2.50; 12½ days' time, 1 man, at \$2, \$25.50..... Making register boxes and fixing up frames, board, and railroad fare for men .....	8 40 2 25 2 00 1 80 2 55 1 00 1 90 1 50 5 46 3 82 6 25 2 50 20 29 16 80 4 10 50 75 24 10	
July 5...	1 wrought iron key, 6 in. long.....	\$1 25	
Sept. 19...	1 tin hood for bridge lamp .....	0 50	
	2 bell cranks, 20c.; wire, 5c.....	0 25	
		2 00	
Dec. 1-31...	McCleary & McLean, Thorold— 248 ft. pine, at \$16, \$3.97; 72 ft. pine, at \$18, \$1.30... 71 do 25 1.78; 590 do 30 17.70... 698 do 35 24.43; 200 do 40 8.00... 213 ft. white wood, at \$60, \$12.78; 37 ft. moulding, at 1½c., 56c..... 34 ft. moulding, at 2c., 68c; 12 ft. moulding, at 4c., 48c. 1,200 do 1½c., \$6; scrolls for gate, \$1..... 4 brackets, at 20c., 80c.; strips, 25c.; 2 turned rings, \$1..... 12 desk legs, at 35c., \$4.20; 8 table legs, at 20c., \$1.60 10 cupboard doors, at 80c., \$8; 5 circles, at 25c., \$1.25 3 storm sashes, at \$1.45.....	5 27 19 48 33 43 13 34 1 16 7 00 2 05 5 80 9 25 3 75	340 22
June 28...	St. Catharines and Welland Canal Gas Light Co.— 16 Public's patent gas burners for lighting bottom of locks during repairs, at \$7.75..... Services for workshop, Port Dalhousie, labor, as per pay roll..... 120 ft. 1½-in. gas pipe, at 10c..... Yard lamp, \$12; post, \$10; burner, \$1 75..... Cock, 60c.; 34 ft. ¾-in. pipe, at 6c., \$2.04..... Labor and cartage..... 3 months' supply gas, yard lamp..... 11,100 ft. gas supplied Port Dalhousie shops, as per meter, at \$2.50 .....	28 00 14 00 12 00 23 75 2 64 4 00 7 50 27 75	99 53
Dec. 3...			
do 17...			
	Old Welland Canal and Feeder.		119 64
Dec. 1-3...	Coy Bros., St. Catharines— 25 lbs. nails, at 4c., \$1; 1 pt. olive oil, 18c.; 10 lbs. cut nails, 60c..... 25 lbs. nails, at 4c., \$1; 5 lbs. finishing nails, 50c.; 1 square file, 60c..... 30 carriage bolts and washers..... 3 rubber packing, \$1.50; 3 paper brads, 30c..... 25 cut nails.....	1 78 2 10 1 65 1 80 1 00	

**ACCOUNTS chargeable to Welland Canal, etc.—Continued.**

Date.	Nature of Work.	Amount.	Total.
1887.		\$ cts.	\$ cts.
Dec. 1-31...	To James Wilson, Merritton— 69 screw bolts, at 2½c., \$1.73; 183 lbs. plates, &c., at 4c., \$7.32.....	9 05	
	407 new screw bolts, at 5c., \$20.35; 48 lbs. steel bars, at 6c., \$2.88.....	23 23	
	88 lbs. new steels, at 20c.....	17 60	
			49 88
do 1-31...	James Wilson, Merritton— 225 lbs. new castings, at 3½c.....	7 88	
	10½ hours boring and turning, at 40c.....	4 20	
			12 08
do 19...	Richard Leeson, Merritton—1 cord hardwood .....		5 50
do 1-31...	H. Vanderburgh, Allanburgh—19 railroad fares, Port Dalhousie and return, at 70c.....		13 30
do 1-31...	McCleary & McLean, Thorold— 4,705 ft. pine, at \$16, \$75.28; 373 ft. pine, at \$17, \$6.84... 3,533 do \$18, \$63 59; 410 do \$25, \$10.25. 132 do \$35..... 306 ft. oak, at \$25 .....	81 62 73 84 4 62 7 65	
	480 ft. elm, at \$17.....	8 16	
	Dressing basswood.....	2 00	
			177 89
do 8...	W. A. Walker, Thorold—6 yards sand, at \$1.25 .....		7 50
Aug. 3...	D. W. Bixley, St. Catharines— 3 lbs. twine, \$1.80; Nov. 7, 32 rolls paper, \$4.....	5 80	
Nov. 7...	70 yds. border, \$2.80; Dec. 5, diary, 35c.....	3 15	
Dec. 15...	Canada almanac.....	0 25	
			9 20
Jan. 1...	Geo. Gibson, P. L. S., St. Catharines— Going to Welland re Canal boundaries. \$5; expenses, \$1	6 00	
Dec. 13, 14, 24	Staking out ditches, taking levels and making cuttings on same on east side of Canal, between Niagara Street Bridge and Geneva Street .....	15 00	
			21 00
Dec. 1...	Henry Law, P. L. S., Dunnville— Survey of the boundary line between the Village of Dunnville and the Canal lands on the north side of the Welland Canal Feeder, 5 days, at \$5.....	25 00	
	Assistants.....	7 50	
			32 50
			1,472 43





## RETURN

(49f)

In answer to an ORDER of the HOUSE OF COMMONS, dated 18th March, 1889;—For copies of Reports, Plans and Surveys of the then proposed Cornwall Canal, by J. B. Mills and Benjamin Wright, Esqrs., Civil Engineers, and Capt. P. Cole, Royal Engineers, in the years 1832, 1833 and 1834. Also for Survey and Report of Colin Cannan, Esq., C. E., of a proposed change of location of Cornwall Canal, from Sand Bridge, through Hoople's Creek, to Archibald's Point, with plans, profiles and estimates. Also Reports, Plans and Surveys made by Mr. Clowes, C. E., in 1826.

### (Memorandum.)

The reports of Messrs. J. B. Mills and Benjamin Wright, Esqs., Civil Engineers, and Capt. P. Cole, Royal Engineers, in the years 1832, 1833 and 1834; also of Colin Cannan, Esq., C. E., of a proposed change of location of the Cornwall Canal, have been printed, and will be found in the Journals of the House for the years and at the pages as under :—

Appendix to Journal, 1833-34.....	Pages 196 to 204
“ 1835, No. 7.....	“ 1 to 37
“ 1836, No. 11.....	“ “
“ 1836-37.....	“ 1 to 19
“ 1837-38.....	“ 134 to 160
“ 1839, pt. 1, vol. 2.....	“ 43 to 81

The report of Mr. Clowes, C. E., in 1826, is not on record in this Department.

CORNWALL, 14th February, 1889.

SIR,—As requested in your telegram of the 13th, I beg to enclose an abstract of the quantities of excavation on the Hoople's Creek line, based on a cross-section.

I am searching through my various boxes of papers, &c., and hope to find a copy of the estimate sent you in 1880, which I think included other items, as land, rip-rap &c., but none for bridge or lock work.

I have the honor to be, Sir, your obedient servant,

TOM S. RUBIDGE.

JOHN PAGE, Esq.,

Chief Engineer of Canals, Ottawa.

## CORNWALL CANAL.

ABSTRACT of Quantities of Excavation on line from Hoople's Creek to Sand Bridge.

	Cubic Yds.
1. Dredging in straightening and deepening channel of Hoople's Creek, including entrance, from station 0—200' to station 51 + 80'.....	257,433
2. Prism excavation in thorough cut above the level of tow-path 19' + bottom.....	45,749
3. Prism excavation in thorough cut below the level of tow-path.....	1,380,080
4. Dredging in deepening channel of Sand Creek, from station 160 to 180, at junction with canal.....	77,986

## SUMMARY.

Item No.	Cubic Yds.
1.....	257,433
" 2.....	45,749
" 3.....	1,380,080
" 4.....	77,986
Total excavation... ..	1,761,248

TOM S. RUBIDGE.

CORNWALL, 14th February, 1889.

CORNWALL, 21st February, 1889.

SIR,—Herewith I beg to forward an estimate of the cost of the projected line from Hoople's Creek to Sand Creek, Cornwall Canal enlargement.

The quantities of excavation previously sent you have been revised and adapted for a canal 90 ft. wide on bottom; slopes 2 to 1; berme 10 ft. wide, 13 ft. x bottom; tow-paths 25 ft. wide and 20 ft. x bottom.

The bottom of canal to be 7 ft. below the mitre-sill of Lock No. 21—the guard lock.

In the estimate I have omitted a guard lock and bridges for the two crossings of the "Queen's Highway" or river road, and substituted a structure designed to serve as a bridge and guard gate combined, and to be built at the Nine Mile Road, lots 6 and 7, a convenient position to accommodate the business between the railway station and the old village of Dickenson's Landing and its immediate vicinity.

It is proposed that the Queen's Highway shall be carried along the tow-path, and for which provision has been made in estimate; or if this arrangement should be considered inconvenient at the west end, a new road may be formed across lots from 81, 30 to the intersection of the Nine-mile Road, between lots 12 and 13, with the Queen's Highway.

Should you, however, consider it necessary to provide for a guard lock, and also for additional bridges, their cost is estimated as follows, viz.:—

Guard lock, including all ordinary items.....	\$115,210
Guard gate " " .....	34,216
Bridge " " .....	40,500

I have the honor to be, Sir, your obedient servant,

TOM S. RUBIDGE, *Engineer-in-Charge.*

JOHN PAGE, Esq.,

Chief Engineer of Canals, Ottawa.



## CORNWALL CANAL ENLARGEMENT.

ESTIMATE of Work on projected line from Archibald's Point to Brownell's Bay, via Hoople's Creek and Sand Creek.

1. Land, minimum width throughout, 350 ft.	145 acres.	at \$400 00	\$58,000 00
2. Clearing and grubbing, full width of land.	45 acres.	" 50 00	2,250 00
3. Mucking, under seats of banks.....	28,000 c. yds.	" 0 25	7,000 00
4. Earth excavation, in dredging and forming a channel in, and an entrance to Hoople's Creek, from Archibald's Point to Station 52.....	54,216 c. yds.	" 0 28	71,180 00
5. Earth excavation in prism of thorough cut, above the level of tow path (20 ft.) including road deviation, etc.....	90,355 c. yds.	" 0 30	27,106 50
6. Earth excavation in prism of thorough cut, below the level of tow path.....	1,360,329 c. yds.	" 0 37	503,321 73
7. Earth excavation in dredging and forming a channel in Sand Creek, from Station 160 to and including its connection with the canal.....	76,037 c. yds.	" 0 22	16,728 14
8. Rock excavation, embracing all loose rock found on the section.....	26,060 c. yds.	" 0 75	19,545 00
9. Protection to banks—Station 0 to 180, 17,500' x 2.....	35,000 lin. ft.	" 1 00	35,000 00
10. Entrance piers, Archibald's Point, including ice breaker, &c. ....	1,000 lin. ft.	" 52 00	52,000 00
11. Combined bridge and guard gate at Nine-mile Road, Station 74, including bridge-tenderer's house, pumping, &c.....			45,399 60
			<hr/> \$837,530 97
Contingencies—10 per cent.....			83,753 00
Total.....			<hr/> \$921,284 00 <hr/>

TOM S. RUBIDGE, *Engineer.*

CORNWALL, 21st February, 1889.

OTTAWA, 28th March, 1889.

SIR,—It is considered proper to state that the survey of what is called Hoople's Creek and Sand Bridge Gully Feeder Line was made a number of years ago, at the request of Dr. Bergin, M.P. for Cornwall.

When the plan was sent in it was, I believe, accompanied by an estimate of the probable cost of carrying out the scheme; but the estimate having been mislaid the resident officer, Mr. Tom S. Rubidge, was requested to furnish a copy, which he did, along with the accompanying letters.

Relative to this matter, it may be stated that the project appears to have been thoroughly investigated and discussed prior to the works of the Cornwall Canal having been undertaken, fully fifty-five years ago; and, judging from existing circumstances it does not appear to have been looked upon favorably—a result that very few, if any, of those persons whose aim is solely the interests of canal navigation will be at all likely to regret. For its resuscitation now, so far as access to or egress from the canal is concerned, no reason worthy of the slightest consideration can be assigned, beyond that of allowing more water to enter the canal at about two miles below its upper end, consequently affording the means of drawing from a larger surface area; but it should be borne in mind that the canal, under any circumstances, for a considerable distance above Lock No. 20 and for the whole distance— $4\frac{3}{4}$  miles—below it, is and must continue of the ordinary width, so long as economy continues to be an object.

The question of "frazil," however interesting in itself or its effects upon the admission of water at certain times during winter, has nothing whatever to do with canal navigation, which, it is well known, does not begin until the season for such accumulation is past and closes before it occurs. The question, therefore, seems in a great measure to resolve itself into whether it is better to spend nearly a million of dollars for the purpose of pleasing the member for Stormont and Cornwall, or reserve the money for a purpose where it is certain to be productive of a really serviceable and useful effect.

This gentleman, I am credibly informed, in a far-fetched, elaborate oration—specially remarkable for length and want of point—occupied the House of Commons for several hours recently in talking about the Cornwall Canal and its projectors, leaving it to be inferred what a very different state of matters would now exist had they possessed a capacity of foresight, having even a very small share of the keen penetration claimed for his long range back-sight.

Moreover, that defects in my humble self—intensified by obstinacy—have perpetuated and are continuing to eternize the evils, past, present and future, which he looks back upon in such a way as impels him to bring the matter before Parliament, and although of a different nature to the study of the human frame and system, he feels himself no less capable of fixing definitely the proper course that should be adopted by the Government, irrespective of what others may advise.

It is truly surprising how some men possess facilities for getting at all kinds of knowledge which others, apparently of fully as large individual capacity, are unable to reach satisfactorily, although assisted by training and experience; still, one occasionally meets a phenomenon of this kind that does not wholly collapse when probed. However, such instances are rare.

From the worthy doctor's elevated standpoint and far-searching vision, he perceives that nothing has been done right, and indeed never can be done satisfactorily on the Cornwall Canal, until the whole management has been taken out of the hands of the Government and placed solely under his enlightened control, or that of a person like him, who can at once deal with valves, roller plates in the bottom, the whole condition of the gates, working of crabs, effects of chain winding upon the systems of lock-men, the position or location of the line—entrances, or whatever is necessary to get the whole into shape and keep everything in the best condition.

I am at a loss to understand in what way I have had the misfortune to incur the ire, or rather to sink so low in the estimation of a person who appears to possess such unusual views of justice, honor and the characteristics indicated in the speech previously mentioned.

It may, however, be stated that it is not generally looked upon as a prominent mark of bravery for even a non-combatant officer to attack a person whose hands are tied, or even for a gentleman of the lancet to assail, in the most prominent place possible, the character, professional or otherwise, of one who is absent, or not in a position to answer the charges. Still, in all such cases it is presumed that a great deal depends on the sense of justice, honor and object of the attacking party.

Before closing this letter it may be stated that the vast array of ancient records exhumed for the occasion, and the use made of them and kindred all-but-forgotten matters, has a strong resemblance to juggling with the subject, for the supposed entertainment of those who had sufficient patience to listen to such a bitter, far-fetched onslaught upon an absent person, who had no more to do with them than the worthy doctor had to do with framing the original Bill for the reform of Parliament or with the settlement of the question of the clergy reserves.

It therefore seems as if the statements were made under the impression that the declaimer possessed the proverbial advantage enjoyed by the chimney sweep, of being fully secure from retaliation in kind.

I have the honor to be, Sir, your obedient servant,

JOHN PAGE, *Chief Engineer.*

The Secretary of Railways and Canals.



## RETURN

(51a)

To an ADDRESS of the HOUSE OF COMMONS, dated the 1st April, 1889, for a Return of Orders in Council relating to the division of the subsidy of \$250,000 to the International Railway Company between the different portions of the road, say from the St. Lawrence to Lennoxville, from Lennoxville to Moose River and Mattawamkeag, from Mattawamkeag to Harvey's Station and from Harvey to Salisbury, giving the number of miles in each division and the amount apportioned thereto.

By order.

HECTOR L. LANGEVIN,

OTTAWA, 11th April, 1889.

*Acting for the Secretary of State.*

CERTIFIED COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 14th June, 1886.

On a Memorandum dated 9th June, 1886, from the Minister of Railways and Canals, representing that the Chief Engineer of Government Railways has had under consideration the question of the apportionment of the subsidy of \$250,000 per annum, for a period of twenty years, granted by the Acts 47 Victoria, chapter 8, and 48-49 Victoria, chapter 58, in aid of the construction of the Short Line of railway between Montreal and the harbors of St. Andrews, St. John and Halifax, a contract for the completion of the necessary links in which line (the said links being comprised in the distance between Montreal and Moncton) having been authorized by an Order in Council of the 19th November, 1885, and signed by the International Railway Company on the 14th December, 1885.

The Minister further represents that the Chief Engineer has taken the following as the basis of cost, his estimate being made up on a schedule of quantities calculated from the profiles of the line surveyed:—

1. St. Lawrence River to Lennoxville, 100 miles, at \$19,000 per mile.....	\$1,900,000 00
2. International Railway to Mattawamkeag, 134 miles, at \$23,000 per mile .....	3,082,000 00
3. Harvey to Salisbury, 113 miles, at \$15,000 per mile.....	1,695,000 00
	\$6,677,000 00

This, he states, will produce for the annual subsidy of the respective sections, as follows:—

1. St. Lawrence River to Lennoxville.....	\$ 71,100 00
2. International Railway to Mattawamkeag.....	115,500 00
3. Harvey to Salisbury.....	63,400 00

Total per annum.....\$ 250,000 00



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The Minister recommends that the apportionment of the subsidy suggested by the Chief Engineer and above set down, be adopted, and that it be paid out accordingly, as accruing under the contract.

The Committee submit the same for Your Excellency's approval.

JOHN J. MCGEE, *Clerk Privy Council.*

To the Honorable the Minister of Railways and Canals.

## RETURN

(54)

**COPY** of the Bill, 51-52 Victoria, chapter 13, Quebec, intituled: "An Act respecting the settlement of the Jesuits' Estates;" copies of the report made on the 16th January last, or any other date, to His Excellency the Governor General upon the said Act; all Orders in Council, reports, opinions or other papers showing the consideration and conclusion arrived at by the Government in regard to the said Act; all correspondence in relation to the said Act had between the Government and the Government of the Province of Quebec, or any other person or persons whomsoever, as well as all petitions or written representations made to the Government for or against the said Act becoming law, and showing at what date the said Bill was received by the Government and approved of by them.

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### CONTENTS.

1. Cap. 13, Statutes of Quebec, 1888, "An Act respecting the settlement of the Jesuits' Estates."
2. Date of receipt thereof.
3. Despatch from the Lieutenant Governor of Quebec, 15th October, 1888, asking intention of the Dominion Government as to the allowance or disallowance of the said Act.
4. Copy of Order in Council, Privy Council, No 78, 19th January, 1889, with report of the Minister of Justice, leaving said Act to its operation.
5. Order in Council, No. 59, dated 22nd January, 1889, in reply to Petitions asking for the disallowance of the said Act.
6. Petitions against the said Act becoming law :
  1. Montreal Presbytery of the Presbyterian Church.
  2. Evangelical Alliance.
  3. Miramichi Presbytery of the Presbyterian Church.
  4. Residents of Huntingdon, P. Q.
  5. Orange Society of Ottawa.

## CAP. XIII.

An Act respecting the settlement of the Jesuits' Estates,

[Assented to 12th July, 1888.]

**Preamble.**

WHEREAS at the opening of this session of the Legislature, it pleased His Honor the Lieutenant-Governor, in his gracious Speech from the Throne, to give expression to the following words:—

“I am happy to inform you that the question of the Jesuits' Estates, which has been so long pending between the religious and civil authorities, and which has caused so much uneasiness in this country, will soon be decided favorably, and to the satisfaction of all who are interested, and that my Government hopes, during this session, to submit a settlement in this connection for your approval.

“The obstacles which prevented the sale of the site of the old college of the Jesuits in this city have been removed; the principle of restitution in kind has been abandoned by the interested parties, and all that remains to be done is to determine the amount of the compensation to be granted.

“On the occasion of the settlement of this delicate question certain Protestant educational institutions will receive a fair allowance, proportionate to the numerical importance of the minority in this Province.”

Whereas the said estates were confiscated by the Imperial authorities under the reign of George III, after the suppression of the Order of the Jesuits, and were afterwards transferred to the authorities of the former Province of Canada.

Whereas a large portion of the said estates was, at the time of and since Confederation, ceded to this Province.

Whereas energetic representations have been made to the civil authorities respecting these estates, by the religious authorities and the citizens of this country, and, especially, by His Lordship Jean François Hubert, Bishop of Quebec, on the 10th November, 1799; by the citizens of Quebec, on the 4th February, 1793; by their Lordships, the Bishops Joseph, Bishop of Quebec, Pierre Flavien Turgeon, Bishop of Sidyme, Coadjutor of Quebec, and Jean Jacques Larigue, Bishop of Telmessia, suffragan of the Bishopric of Quebec, and Grand Vicar of the district of Montreal in or about the year 1835; by their Lordships, the Bishops Joseph, Archbishop of Quebec, Pierre Flavien Turgeon, Bishop of Sidyme, Coadjutor of Quebec, Pius, Bishop of Kingston, Patrick, Bishop of Carrha, Coadjutor of Kingston, Ignace, Bishop of Montreal, T. Charles, Bishop elect of Martyropolis,



Coadjutor of Montreal, Michael, Bishop of Toronto, in January, 1845; by the clergy of the dioceses of Quebec and Montreal, in June, 1847; by the Reverend Father Théophile Charaux, Superior General of the Mission of the Jesuits in Canada, in January, 1874; by their Lordships, the Bishops E. A., Archbishop of Quebec, L. F., Bishop of Three Rivers, Jean, Bishop of Rimouski, Edouard Charles, Bishop of Montreal, Antoine, Bishop of Sherbrooke, J. Thomas, Bishop of Ottawa, L. Z., Bishop of St. Hyacinthe, Dominique, Bishop of Chicoutimi, on the 9th October, 1878; and finally, by His Grace the Archbishop of Quebec, on the 2nd of January, 8th of April and 27th of April, 1885.

Whereas, in his letter of the 2nd of January, 1885, addressed to the Honorable John J. Ross, then Premier of this Province, His Grace the Archbishop of Quebec stated:

"I have the honor to inform you that, in virtue of an Indult of the 13th of October, 1884, I am personally authorized by the Holy See to treat with the Government of the Province of Quebec, and, for a reasonable compensation, to settle the question of the ownership of the property formerly owned in this Province by the Jesuits when their order was suppressed in 1773."

Letter from Archbishop of Quebec to Hon. J. J. Ross, Premier, informing him that he was authorized to treat with the Government respecting Jesuits' Estates.

Whereas, in answer to one of these representations of His Grace the Archbishop of Quebec, dated on the 8th April, 1885, the Honorable John J. Ross, then Premier, replied as follows on the 25th of April of the same year:

"If His Honor the Lieutenant-Governor in Council decides to re-open and reconsider this question of the Jesuits' Estates, I will not fail to notify Your Grace and the Reverend Jesuit Fathers, so that, with your assistance and theirs, he may, if expedient, be able to submit to the Legislature a measure which will settle this question in a satisfactory and definite manner."

Reply of Hon. J. J. Ross, to Archbishop of Quebec.

Whereas, consequent upon these various representations and specially that of the 9th of October, 1878, signed by the Bishops of the Province, protesting against the Government putting up for sale the property of the old Jesuits' College at Quebec, such sale did not take place and the property was allowed to fall into a wretched condition.

Whereas, on the 17th of February, 1888, the Honorable Honoré Mercier, Premier of this Province, wrote the following letter:

"Rome, 17th February, 1888.

"To His Eminence Cardinal Giovanni Simeoni,

"Prefect of the Sacred College of the Propaganda.

"May it please Your Eminence:

"A despatch from Your Eminence, dated on the 7th May last, 1887, informed His Eminence Cardinal Taschereau that

Letter from Hon. H. Mercier to

Cardinal Si-  
meoni respect-  
ing the sale of  
the old Je-  
suits' college,  
Quebec.

the Holy Father reserved to himself the right of settling the question of the Jesuits' Estates in Canada.

"Among the property so-called Jesuits' Estates, there is the property of the old college of the fathers situate opposite the Basilica, in the very centre of the capital of the Province of Quebec.

"My predecessors in the Government deemed it their duty, in 1876, I believe, to order the demolition of the college and the division of the property into building lots, in view of an immediate sale, which, however, did not take place, owing to certain representations from exalted personages at the time.

"To avoid further difficulties, as I suppose, my predecessors let the matter lie and allowed the property to be so neglected that it has become a grazing ground and a receptacle for filth, so much so that it is openly said in Quebec that the matter has become a public scandal.

"Under these circumstances, I deem it my duty to ask Your Eminence if you see any serious objection to the Government's selling the property, pending a final settlement of the question of the Jesuits' Estates.

"The Government would look on the proceeds of the sale as a special deposit to be disposed of hereafter, in accordance with the agreements to be entered into between the parties interested, with the sanction of the Holy See.

"As it will perhaps be necessary upon this matter to consult the Legislature of our Province, which is to be convened very shortly, I respectfully solicit an immediate reply

"Your Eminence will be pleased to accept the filial consideration with which I have the honor to subscribe myself,

"Your Eminence's devoted servant,

"(Signed) HONORÉ<sup>E</sup> MERCIER,

"Premier of the Province of Quebec."

To which letter the following reply was sent:

(Translation.)

Rome, 1st March, 1888.

"Illustrious Sir,

Cardinal Si-  
meoni's reply  
respecting  
sale.

"I hasten to notify you that, having laid your request before the Holy Father at the audience yesterday, His Holiness was pleased to grant permission to sell the property which belonged to the Jesuit Fathers before they were suppressed, upon the express condition, however, that the sum to be received be deposited and left at the free disposal of the Holy See.



"In making this communication to you I wish you all good in the name of the Lord.

"Your Lordship's very affectionate,

"(Signed) GIOVANNI CARDINAL SIMEONI,  
"Prefect, &c."

Whereas, on the 21st March, 1888, the following telegram was sent from Quebec to His Eminence Cardinal Simeoni at Rome : Preamble.

"In the matter of the Jesuits' Estates, the Government respectfully objects to the condition imposed in the letter of Your Eminence of the first of March instant, and cannot expect to succeed in the settlement of this delicate question unless permission is given to sell the property upon the conditions and in accordance with the exact terms of my letter of the seventeenth of February last. Telegram from Mr. Mercier to Cardinal Simeoni objecting to conditions

"I respectfully solicit an immediate favorable answer in the interests of the final settlement of the question.

"(Signed) HONORÉ MERCIER,  
"Premier."

Whereas, on the 24th of March, 1888, the following answer was sent from Rome by His Eminence Cardinal Simeoni :

"The Pope allows the Government to retain the proceeds of the sale of the Jesuit Estates as a special deposit to be disposed of hereafter with the sanction of the Holy See." Cardinal Simeoni's reply

Whereas, consequent upon these negotiations, the following correspondence was exchanged between the Premier and the Very Reverend Father Turgeon, rector of St. Mary's College, Montreal, and agent for the Holy See : Preamble.

"St. Mary's College, 25th April, 1888.

"Honorable HONORÉ MERCIER,

"Premier of the Province of Quebec.

"Sir,

"I have the honor to forward you a copy of the official letter, dated Rome, the 27th March, 1888, by which the Sacred College authorizes the Jesuit Fathers to treat with the Government, in the matter of the 'Jesuits' Estates.' Letter from Rev. A. D. Turgeon to Mr. Mercier notifying him of Mr. Turgeon's appointment as attorney to settle the

"I have also the honor to inform you that, at a meeting of the corporation of the 'Society of Jesus,' on the 2nd April, 1888, I was appointed general and special attorney for that purpose.



Jesuit's estate's question.

"Further, that, on the 9th of April last, the Reverend Father Superior of the Mission in Canada gave me his power of attorney by deed made and passed in the city of Montreal, district of Montreal, in the office of Mtre. L. O. Hétu, Notary Public, with full power to treat with the Government upon the conditions expressed in the letter of the Sacred College.

"I have the honor to be,

Sir,

"Your very obedient servant,

"(Signed) A. D. TURGEON, S. J.,

"Procurator of the Jesuits at Montreal."

(Translation.)

"Rome, 27th March, 1888.

"Very Reverend Father,

Letter from Cardinal Simeoni to Rev. A. D. Turgeon giving him authority to effect settlement.

"I have pleasure in notifying you that the question respecting the revendication of the property of the Jesuit Fathers in Lower Canada, having been referred to a special commission of Cardinals on the 20th of March instant, the following proposition was submitted for solution :

"Should authority be given to any one to claim from the Government of the Province of Quebec the property which belonged to the Jesuit Fathers before the suppression of the society, and to whom and how should it be given."

"Their Eminences the Cardinals replied as follows :

"Affirmatively in favor of the Fathers of the Society of Jesus and in accordance with the method prescribed in other places, that is to say, that the Fathers of the Society of Jesus treat in their own name with the civil government, in such a manner, however, as to leave full liberty to the Holy See to dispose of the property as it deems advisable, and, consequently, that they should be very careful that no condition or clause should be inserted in the official deed of the concession of such property which could in any manner affect the liberty of the Holy See.

"Further, whatever be the sum which the Jesuit Fathers receive from the Government, that they should be obliged to deposit it in a place of safety to be determined by the Sacred College.

"The foregoing resolution was referred to the Holy Father at to-day's audience and His Holiness was pleased to approve of it in its entirety ;

You are consequently authorized to revendicate the said property upon the conditions above set forth.

"Whilst making you this communication, I pray the Lord to preserve and prosper you

"Reverend Father,

"Yours, &c.,

"(Signed) JEAN CARD. SIMEONI, Prefect.

"(Signed) D. ARCH. DE TYRE, Secy.

"The Very Reverend Father

"Procurator of the Jesuits,

"Montreal."

"PREMIER'S OFFICE,

"Province of Quebec,

"Quebec, 1st May, 1888.

"Reverend Father TURGEON,

"Procurator of the Jesuits at Montreal,

"Montreal.

"Very Reverend Father,

"I submitted to my colleagues the copy of the letter of the Sacred College of the Propaganda, dated Rome, 27th March last, which authorizes the Jesuit Fathers to treat in their own name with the Government of the Province respecting the property known as the 'Jesuits' Estates.' I also submitted to them your letter of the 23th of April last, by which you forwarded to me that of the Propaganda, and in which you inform me that you have been appointed general and special attorney for the above purposes, and that the Reverend Father Superior of the Mission in Canada gave you power of attorney before Mtre. Héti, Notary, with full power, &c., &c.

Letter from  
Mr. Mercier to  
Rev. Mr. Tur-  
geon fixing  
bases of  
settlement,

"Before entering into negotiations with you respecting these estates, the Government desires you to bear in mind :

"1. That you must deposit with a notary the original of the aforesaid letter from the Sacred College, with two solemn declarations made according to law, and identifying the signatures of the Prefect and Secretary of the said College, which are at the end of the said document ;

"2. That authentic copies of the said letter and solemn declarations, as well as of the resolution of your corporation passed on the second of April last, and of the power of attorney from the Reverend Father Superior of the Missions in Canada, be forwarded to us ;

"3. That in consenting to treat with you respecting this property, the Government does not recognize any civil obligation, but merely a moral obligation, in this respect ;

"4. That there cannot be a question of a restitution in kind ; as this has been abandoned by those concerned, but only a compensation in money to be agreed upon amicably with you ;

" 5. That the amount fixed as compensation shall be exclusively expended in the Province ;

" 6. That you will grant to the Government of the Province of Quebec a full, complete and perpetual concession of all the property which may have belonged in Canada, under whatever title, to the Fathers of the old Society, and that you will renounce to all rights generally whatsoever upon such property and the revenues therefrom in favor of our Province, the whole, as well in the name of the old Order of Jesuits, and of your present corporation, as in the name of the Pope, of the Sacred College of the Propaganda and of the Roman Catholic Church in general ;

" 7. That any agreement made between you and the Government of the Province will be binding only in so far as it shall be ratified by the Pope and the Legislature of this Province ;

" 8. That the amount of the compensation fixed shall remain in the possession of the Government of the Province as a special deposit until the Pope has ratified the said settlement and made known his wishes respecting the distribution of such amount in this country ;

" That your corporation will receive the interest upon such deposit at four per cent. from the date of the signification to the Provincial Secretary of the *acte* of the Pope confirming the said arrangement, up to the payment of the capital, which is to be made to the persons entitled thereto within six months after the signification to the said Provincial Secretary of the decision of the Pope respecting such distribution ;

" 9. Finally, that the statute ratifying such agreement shall contain a clause enacting that when such settlement is arrived at, the Protestant minority will receive a grant in proportion to its population in favor of its educational work.

" These, Reverend Father, are the bases upon which the Government wishes to treat with you the delicate question of the property called the 'Jesuits' Estates.'

" Hoping that you will second our wishes to settle the matter as soon as possible, for the advantage of all persons interested.

" I have the honor to remain,

" Your very devoted servant,

" (Signed)      HONORÉ MERCIER.

" Premier."



“ QUEBEC, 8th May, 1888.

“ Honorable HONORÉ MERCIER,

“ Premier, Province of Quebec,

“ Sir,

“ I have the honor to acknowledge receipt of your letter of the 1st May last, in which you state that you had submitted to your colleagues the Indult of the Sacred College of the Propaganda, dated Rome, the 27th March last, authorizing the Fathers of the Society of Jesus to treat, in their own name, with the Government of the Province of Quebec, the question of the property known as the ‘ Jesuits’ Estates’

Letter from  
Rev. A. D.  
Turgeon to  
Mr. Mercier,  
accepting  
bases of  
settlement.

“ You also state that you had submitted to your Honorable colleagues my letter of the 25th April last, by which I inform you that I was appointed general and special attorney for the aforesaid purposes, and that the Reverend Father Superior of the Mission in Canada, gave me a power of attorney before Mtre. Hétu, notary, with power, &c., &c.

“ Please accept my thanks, Sir, for the very prompt attention which you were pleased to give to my communication.

“ I have now the honor to reply to the different points which your Government wishes me to bear in mind, following the order of the numbers in yours of the 1st May,

“ 1. The original of the aforesaid letter of the Sacred College, with solemn declarations made according to law, identifying the signatures of the Prefect and Secretary of the said College, which are at the end of the said document, have been deposited in the office of Mtre. Cyrille Tessier, notary, residing in the city of Quebec.

“ 2. Enclosed please find authentic copies of that letter and of the two solemn declarations, as well as of the resolution of our Corporation passed on the 2nd of April last, and of the power of attorney of the Reverend Father Superior of the Mission in Canada, the original whereof under the number eleven thousand eight hundred and fifty-four, remains in the office of Mtre. L. O. Hétu, notary, residing in the city of Montreal.

“ 3. The moral obligation which the Government recognizes in consenting to treat with me is a sufficient guarantee to permit of my entering upon the negotiation.

“ 4. The Holy See, the superiors of the Society of Jesus and the corporation which I represent, whilst praising your desire to render justice to the Fathers of the Society of Jesus, also wish to assist the Government in settling this question and to give a proof of their devotion to this country and to the Province of Quebec in particular; they will consequently be satisfied with a fair compensation, regard being had to the value of the property heretofore in

the possession of the Jesuit Fathers, in place of a restitution in kind.

"Such compensation in money will be fixed amicably, as I have reason to hope from the great kindness that you have so far shown me, and the generous assistance which will be given to us by your Honorable colleagues, and the Honorable members of both Houses.

"If, however, it should be necessary to resort to arbitration, none of the parties interested can object thereto.

"5. Relying upon the constitutions of the Society of Jesus, and upon the intentions of the former donors, I can affirm that the sum fixed as compensation and which will be received by the Jesuit Fathers, will be exclusively expended in the Province.

"6. The Government of the Province of Quebec will receive a full, complete and perpetual concession of all the property which may have belonged in Canada, by whatever title, to the Fathers of the old Society, and the Jesuit Fathers will renounce to all rights generally whatsoever upon such property and the revenues therefrom in favor of the Province, the whole, in the name of the Pope, of the Sacred College of the Propaganda and of the Roman Catholic Church in general.

"7. Any agreement made between the Government of this Province and the Jesuit Fathers will be binding only in so far as it shall have been ratified by the Pope and the Legislature of this Province.

"8. The amount of the compensation fixed shall remain in the possession of the Government of the Province as a special deposit, until the Pope has ratified the said settlement, and made known his wishes respecting the distribution of such amount in this country.

"Our corporation will receive the interest upon such deposit at four per cent. from the date of the signification to the Provincial Secretary of the *acte* of the Pope confirming the said arrangement, up to the payment of the capital which is to be made to the persons entitled thereto within six months after the signification to the said Provincial Secretary of the decision of the Pope respecting such distribution.

"9. As this clause does not touch the question which I am entrusted to treat with the Government, I wish you would dispense with my replying thereto.

"It only now remains for me, to again express my gratitude, and to promise you my assistance in aiding you to settle as promptly as possible this delicate question.

"I have the honor to be,

"Your very humble servant,

"(Signed) A. D. TURGEON, S. J.,

"Procurator of the Jesuits."



PREMIER'S OFFICE,  
Quebec, 14th May, 1888.

" Reverend Father,

" In reply to your letter of the 8th instant, I have the honor to inform you that the Government is prepared to receive your claim in writing as to the compensation to be allowed.

Letter from Mr. Mercier calling upon Rev. Mr. Turgeon to produce claim for compensation.

" It hopes that it will be very reasonable and moderate, in view of the financial and other difficulties of the Province.

" Your obedient servant,  
(Signed) HONORÉ MERCIER.

" Very Reverend Father TURGEON, S. J."

" QUEBEC, 20th May, 1888.

" The Honorable HONORÉ MERCIER,  
" Premier, Province of Quebec.

" Sir,

" I have the honor to acknowledge receipt of your letter of the 14th instant, in which you inform me that the Government is prepared to receive my claim for a reasonable and moderate compensation.

Letter from Rev. A. D. Turgeon to Mr. Mercier claiming certain sum as compensation.

" This, Sir, is what I think I should reply in support of the cause which I have the honor to defend :

" According to the official reports which you were kind enough to communicate to me, I find that the ' Jesuits' Estates ' are valued at the sum of \$1,200,000.00.

" This is only approximate, and I think it is greatly less than the real value.

" Competent men whom I have consulted at Quebec, Montreal and Three Rivers do not hesitate to state that the Jesuits' Estates are worth at least \$2,000,000.00.

" They calculate :

- |  |    |            |
|--|----|------------|
| " 1. The seigniories and fiefs at.....   | \$ | 5,000 00   |
| " 2. The property in the centre of the city of Montreal, a superficies of 330,003 feet, may be valued at \$3 a foot, as the authorized valuator assert even that the real price is \$6 a foot, as it is \$10 at the <i>Place d'Armes</i> and \$16 at <i>Victoria Square</i> , representing, for half the real value, a sum of..... |    | 990,009 00 |
| " 3. At Quebec, the property of the old college is valued in the official reports at a price varying from \$50,000 to \$200,000, say .....   |    | 100,000 00 |
| " 4. The revenues since 1867 reach the sum of .....  |    | 400,000 00 |
| " 5. The capital of the <i>lods et ventes</i> is.....  |    | 92,572 00  |
| " 6. A property at N.D. des Anges was sold for .....   |    | 18,200 00  |
| " Which gives a total of over two million dollars.   |    |            |



" You will notice, Sir, that nothing is said of interest even since Confederation.

" It is, therefore, in view of these documents that I am called upon to make a claim for a reasonable and moderate compensation before putting the Government in full enjoyment and lawful possession of all the Jesuits' Estates in Canada.

" Now, my reasonable and moderate proposition is this :

" I ask from the Government of the Province of Quebec one-half of the actual value of only one of the properties which our Fathers bought with their own money, of our property in Montreal, that is to say, \$990,009.00, and the Jesuit Fathers will abandon all the other properties. (See list of the Jesuits' Estates.)

" I base my moderate claim upon the following reasons :

" 1. I ask only one-half of a single property and I concede twenty others (see list of the estates) ; is not that reasonable and moderate ?

" 2. Our present debts amount to \$200,000.00 ; for our three establishments for study and training we require not less than \$30,000.00 of annual revenue ; to make the urgent repairs which are required at our establishments of Quebec, Three Rivers, Montreal, Sault au Recollet and Lake Nominingue, it would require not less than \$200,000, so that my demand is reasonable and moderate.

" 3. Will the Government find my demand exaggerated when it considers that the sale of one property alone would reimburse it and be more than enough ?

" For instance, the *Champ de Mars*, at \$5 a foot, would bring \$1,024,110.00 ; would not a similar result be obtained with the seigniority of Cap la Magdeleine, which is forty leagues in superficies ?

" That is the reason why I consider my demand reasonable and moderate.

" I am not unaware that, in a document presented at Rome some years ago, the whole of the Jesuits' Estates were valued at \$400,000.00 ; but the incorrectness of that valuation is shown even in the official reports above cited.

" The same document contains other statements none the less incorrect to prove that the Society of Jesus would be unable of itself to recover the property owing to the opposition which it would meet with in the Legislature.

" In protesting against this insinuation, I am happy to affirm that since the Society of Jesus entered into negotiations with the Government it has met with the utmost kindness from you, and your Honorable colleagues and the Honorable members of both Houses.

" In conclusion may I suggest :

" As soon as the settlement is arrived at, would it not be possible, beyond the compensation allowed, to give to the

Jesuit Fathers a lot of land which would be a monument to commemorate the eminently Catholic and conservative act which you are about to perform.

"I would suggest the Common of Laprairie; this property, in its present condition, is of little value, but it would suffice for the commemorative purpose indicated.

"It is also one way of commemorating, in the political history of the country, that glorious concordat, the effecting whereof would be associated with the name of your Government, as soon as the Holy Father has ratified it; that is, that the establishments of the Jesuit Fathers in this Province are always allowed, in accordance with their deserts and if they ask for it, to participate in the grants which the Government of this Province allows to others institutions to encourage teaching, education, industries, arts and colonization.

"The reason of this favor is that these grants would be made in great part out of the funds of the 'Jesuits' Estates.'

"Would it not be strange, to say nothing further, to refuse the Jesuits a share, granted to others, out of the pecuniary benefits derived from the revenues of these same Estates with which the Jesuits enriched the Province.

"Here then, Sir, is what I think it necessary to say to you before knowing what the Government is ready to offer as compensation for the 'Jesuits' Estates.'

"Awaiting the honor of a reply I depend upon the justice of my claim and upon the liberality of a wise Government.

"I have the honor to be,

"Sir,

"Your humble servant,

"(Signed) A. D. TURGEON, S. J.

"Procurator of the Jesuit Fathers."

"PREMIER'S OFFICE,

"Province of Quebec,

"Quebec, 4th June, 1888.

"Very Reverend Father,

"I have the honor to acknowledge receipt of your letter dated the 20th May last.

"You acquaint me with the conditions upon which you are prepared to settle the question of the 'Jesuits' Estates' by means of a compensation equal to one-half of the value of one of the properties of the Jesuits bought with their own money.

"I submitted your letter to my colleagues, assembled in Council, and we came to the conclusion to answer you, as follows:

Letter from  
Mr. Mercier  
to Rev. A. D.  
Turgeon ~~declining to~~  
give amount  
claimed and  
making counter offer.



"1. Seeing the difficulties surrounding the settlement of this question and the situation of the Province, we are obliged with regret to say that we can not offer you more than \$400,000.

"2. To arrive at this figure we do not take as a basis the intrinsic value of the property, as the religious authorities long ago abandoned the claim for a restitution in kind, and invariably limited their claim to a compensation.

"The amount of this compensation was even indicated by the religious authorities of this country, at Rome, which authorities on several occasions declared themselves willing to accept \$400,000.

"3. It is therefore impossible for us to exceed that sum.

"We are ready to offer it to you upon the conditions contained in my letter of the 1st May last.

"4. Further, in commemoration of the settlement, we will retrocede to you the rights which the Government possesses in the Common of Laprairie.

"Such rights, small it is true, are, however, the same which the Jesuit Fathers reserved for themselves by the deed of concession to the inhabitants of Laprairie de la Madeleine, passed on the 19th May, 1694, before Mtre. Adhémar, royal notary of the Island of Montreal, less the few changes in such rights made by Acts of the Legislature.

"These are the offers which my colleagues charged me to make to you.

"Hoping that, under the circumstances above set forth, you may accept them.

"I have the honor to be

"Your very devoted,

"(Signed) HONORÉ MERCIER.

"Very Reverend Father TURGEON,

"Agent of the Holy See,

"Quebec, P.Q."

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"Quebec, 8th June, 1888.

The Honorable HONORÉ MERCIER,

"Premier,

"Province of Quebec.

"Sir,

Acceptance  
by Rev. A. D.  
Turgeon of  
Mr. Mercier's  
counter offer.

"In view of your letter of the 4th of June instant, declaring that it is impossible for the Government to offer more than \$400,000.00, and for the reasons given by you and the difficulties you allege, I think I am fulfilling the mandate entrusted to me and carrying out the wishes of the Holy See and of the Superior of the Company of Jesus, who have at heart the removal of the uneasiness caused by



this question in the country, by accepting your offers, small as they are, and by hoping that the Holy See will agree to them and be pleased to ratify them.

"I have the honor to be,

"Sir,

"Your very humble servant,

"(Signed) A. D. TURGEON, S. J.,  
"Procurator of the Jesuits."

"PREMIER'S OFFICE,

"Province of Quebec,

"Quebec, 8th June, 1888.

"Very Reverend Father,

"I have the honor to acknowledge receipt of yours of this day, in which you inform me that in your official capacity you accept the offers made by the Government to you in my letter of the 4th of June instant.

Letter from  
Mr. Mercier  
to Rev. A. D.  
Turgeon  
acknowledg-  
ing receipt of  
acceptance of  
counter offer.

"There only remains for me to prepare the necessary documents and to submit them to the proper persons.

"Believe me, Very Reverend Father.

"Your very devoted,

"(Signed) HONORÉ MERCIER,  
"Premier.

"The Very Reverend Father TURGEON,

"Procurator of the Jesuits,

"Quebec, P. Q."

"Whereas copies of the said letters of the Reverend Father Turgeon, dated the 25th April, 1888, and of the Premier of the 1st May, 1888, have been communicated to His Eminence Cardinal Taschereau, as appears by the following correspondence:

"PREMIER'S OFFICE,

"Province of Quebec,

"Quebec, 3rd May, 1888.

"To His Eminence Cardinal Taschereau,  
Quebec.

"May it please Your Eminence:

"I have the honor to forward you herewith, for the information of Your Eminence, copies of the following documents:

Letter from  
Mr. Mercier  
to Cardinal  
Taschereau  
forwarding  
him certain  
documents  
respecting  
settlement.

"1. A letter of the Prefect and Secretary of the Sacred Congregation of the Propaganda, dated Rome, 27th March, 1888, authorizing the Procurator of the Jesuits, at Montreal, to treat with the Government of this Province, on the question of the Jesuits' Estates. (Italian version.)

" 2. French version of the same letter, the translation having been made by the Reverend Jesuit Fathers ;

" 3. A letter of the Reverend Father Turgeon, enclosing the said letter from the Propaganda ;"

" 4. The reply of the Government to the Reverend Father.

" I remain

" Your Eminence's

" Most obedient servant,

" (Signed)

HONORÉ MERCIER,

" Premier."

His Eminence was pleased to reply to the said communication as follows on the 4th May, 1888:

" Sir,

Letter from  
Cardinal Tas-  
chereau to  
Mr. Mercier  
acknowledg-  
ing receipt.

" I have the honor to acknowledge the receipt of your letter of yesterday, with the documents which accompany it, respecting the matter of the Jesuits' Estates.

" Please accept my thanks.

" Your obedient servant,

" (Signed) E. A. CARDINAL TASCHEREAU,

" Archbishop of Quebec."

Whereas the documents transmitted by the very Reverend Father Turgeon, with his aforesaid letter of the 8th May, 1888, are in the following words:

Extract from  
minutes of  
corporation of  
society of  
Jesus ap-  
pointing Rev.  
A. D. Tur-  
geon as gene-  
ral and spe-  
cial attorney  
to treat with  
Government  
respecting  
Jesuits'  
Estates.

" Extract from the minutes of the corporation of the Society of Jesus at a meeting of the members of the said congregation, held on the second of April, eighteen hundred and eighty-eight, at the house of the Immaculate Conception in Montreal, Rachel street.

(Translation.)

" Father Adrien Turgeon is appointed general and special attorney of the Reverend Father Superior for the purpose of treating with the Government of the Province of Quebec, respecting the question of the estates of the late order of Jesuits in Canada (Jesuits' Estates), or any other question."

" (Signed)

F. VIGNON, S. J.

Secret."

Delegation of  
powers Rev.  
Pierre Hamel  
to Rev. A. D.  
Turgeon.

" Before Léonard Ovide Héту, notary public, duly admitted in and for the Province of Quebec, one of the Provinces of the Dominion of Canada, residing in the city of Montreal, in the district of Montreal, in the said Province of Quebec, undersigned, appeared :

“Reverend Father Pierre Hamel, Superior of the Society of Jesus in Canada, residing in the city of Montreal, in the district of Montreal, who, by these presents constitutes and appoints as his general and special attorney, the Reverend Father Adrien D. Targeon, Rector of St. Mary's College, of the city and district of Montreal, to whom he gives and delegates all rights and powers which he possesses or may possess hereafter, either in his personal capacity or as Superior of the Society of Jesus, or as delegate, attorney or *chargé d'affaires* of the Reverend Father General of the Society of Jesus, or as delegate, attorney or *chargé d'affaires* of the Holy See, with reference to the property of the Jesuits now held by the Government of the Province of Quebec, and to any matter directly or indirectly connected with the question of the former estates of the Jesuits in Canada, and with reference to all transactions of any kind whatsoever, which might be effected from and after this date with the Government or Legislature of the Province of Quebec, or with any minister or member of the federal or provincial Governments in Canada, and also with reference to any petition, bill or measure which might be submitted of the parliaments or legislatures of Canada by the Society of Jesus or by any establishment of the Order of Jesuits, or submitted to the said parliaments or legislatures by other persons, but affecting directly or indirectly in any manner the rights or interests of the Society of Jesus or of any of its establishments, especially the power of asking and receiving from all persons to whom it may appertain, the movable and immovable property and movable and immovable claims belonging to the Society of Jesus or of which the party appearing, in any of his aforesaid qualities, shall have the control, direction, administration or disposal, by any title whatsoever, the power to sell, abandon, exchange, transfer or lease the said property to such person by such means and for such prices, charges, clauses, conditions and considerations, as the constituted attorney shall deem advantageous or acceptable, to bind himself to all guarantees, to receive the price of the said property and give a discharge therefor, to accept any indemnity and consent to any arrangement or compromise of any kind whatsoever, to receive the said indemnity or compensation and to give a good and valid acquittance therefor, to name and appoint all advocates, counsel, arbitrators, umpires and experts, etc., to substitute one or more persons in the whole or in a portion of the present powers, to revoke the same and substitute others therefor, and sign all deeds to the above effect and generally to do, in the most ample manner, everything which the appearing party might himself do, although not herein provided, ratifying and promising to ratify the same at once upon being so requested, these presents to remain



valid until expressly revoked, notwithstanding their expiration or lapse of time.

" Thus done and passed in the city of Montreal, in the district of Montreal, in the office of the said undersigned notary, in the year one thousand eight hundred and eighty-eight, on the ninth day of the month of April, in the afternoon, under the number eleven thousand eight hundred and fifty-four.

" And the party appearing has signed with me the said notary."

" (Signed) P. HAMEL, S. J.,

" (Signed) L. O. HÉTU, N. P.

" True copy of the original remaining of record in my office.

" (Signed) L. O. HÉTU, N. P."

Deed of deposit of original letter of Cardinal Simeoni.

" In the year one thousand eight hundred and eighty-eight, on the fifth of May, before the undersigned Notary Public for the Province of Quebec, Canada, residing in the city of Quebec, appeared :

" The Very Reverend Father Adrien D. Turgeon, of the city of Montreal, member of the Society of Jesus, rector of St. Mary's College, at Montreal, in his quality of representative or attorney, in accordance with the deed of delegation of powers of the 9th of April last (1888), before L. O. Héту, notary, at Montreal, of the Very Reverend Father Pierre Hamel, of the city of Montreal, Superior of the Society of Jesus in Canada, in the different capacities detailed in the said act, who hereby deposits with Cyrille Tessier, the undersigned notary, and requires him to place the same among his minutes, dated this day, the original of a letter (or Indult) in Italian and Latin, addressed to the Very Reverend Father, the Procurator of the Jesuits of Montreal, by His Eminence Jean Cardinal Simeoni, Prefect of the College of the Propaganda, dated at Rome, on the 27th day of March last ; which letter, to which is affixed the signature of His Lordship the Archbishop of Tyre, Secretary of the said College, is annexed to the minute hereof, after having been by the appearing party, duly certified and signed in presence of the said notary.

" To the minute of this deed are also annexed two solemn declarations verifying and identifying the signatures affixed to the end of the said letter ; one of Monsignor Henri Têtu, of Quebec, priest, Private Chamberlain of His Holiness Leo XIII, Almoner of the Archbishop of Quebec, and the other of Monsignor Cyrille Alfred Marois, priest, Private Chamberlain of His Holiness Leo XIII, Secretary of the Archdiocese of Quebec, residing at Quebec, which declarations are dated this day and were received before Cy. Tessier, the undersigned notary, at Quebec, under the number seven

thousand four hundred and seventy-nine of the minutes of Cy. Tessier, the undersigned notary.

" In faith and testimony whereof, the party appearing has signed with the said notary, the same having been duly read.

" (Signed) A. D. TURGEON, S. J.,

" (Signed) CY. TESSIER, N. P.

" True copy of the original remaining of record in my office.

" (Signed) CY. TESSIER, N. P."

" S. Congregazione di propaganda

" Segretaria

" No. 1590.

" Oggetto.

Original  
letter from  
Cardinal  
Simeoni to  
the Procur-  
ator of the  
Jesuits.

" Roma li 27 Marzo, 1888.

" RMO PADRE,

" Ho il piacere di significare alla P. V. che deferita la questione concernente il riacquisto dei beni dei Padri Gesuiti nel basso Canada ad una speciale commissione Cardinalizia nel giorno 23 corr. Marzo fu ad essa proposto a risolvere il dubbio seguente: " Se, come, ed a chi convenga dare l'autorizzazione di reclamare dal Governo della Provincia di Quebec i beni appartenuti ai PP<sup>i</sup>. Gesuiti prima della soppressione della compagnia." Ora gli Emi Cardinali risposero: " Affirmative, favore PP. Societatis Jesu, et iuxta modum alias praescriptum, scilicet PP. Societatis Jesu suo nomine cum civili Gubernio agant, ita tamen ut Sedi applicae plena libertas maneat de iis bonis disponendi, prout opportunum iudicaverit, et ideo curandum illis omni studio est, ut nulla conditio vel clausula in publico instrumento cessionis bonorum apponatur, quibus S. Sedis libertas quocumque modo afficiatur. Insuper quaecumque summan PP. Societatis Jesu percepturi erunt a Gubernio, deponere teneantur in loco tuto a S. Congne determinando."

" Riferta la sud<sup>a</sup>. risoluzione nell'Udienza del giorno stesso 20. Marzo al S. Padre' Sua Santità si degnò approvarla in tutte le sue parti. Quindi è che la P. V. è autorizzata a rivendicare i beni stessi con le condizioni già esposte.

" In questa intelligenza prego il Signore, che La conservi, e La prosperi.

" Di V. P.

" Affmo

" GIOVANNI CARD, SIMEONI Prefetto.

" Revmo

" Pe Procuratore dei Jesuiti di

" Montreal,

" D. ARCIV. DI TYR Segret,

"This is the original letter mentioned in a certain deed of deposit made by me this day before Cy. Tessier, notary, at Quebec, which letter I certify to be true.

"Quebec, 5th May, 1888.

"(Signed) A. D. TURGEON, S. J.

"In presence of

"(Signed) CY. TESSIER, N. P.

"A true copy,

"(Signed) CY. TESSIER, N. P."

Declaration  
of Rev. H.  
Tétu as to  
signatures to  
letter.

"I, Henri Tétu, Priest, Private Chamberlain of His Holiness Leo XIII, Chaplain of the Archbishop's Palace, Quebec, residing in the city of Quebec, solemnly declare that the signatures, "Giovanni Card. Simeoni Prefetto" and "D. Arciv. di Tyr Segret, at the foot of the letter—or indult—in the Italian and Latin languages, addressed to the Reverend Father Procurator of the Jesuits of Montreal, dated at Rome on the twenty-seventh March last (1888) and bearing the number 1590 are, severally, the signatures of Cardinal Simeoni, Prefect, and of his Lordship the Archbishop of Tyre, Secretary of the College of the Propaganda.

"And I make this solemn declaration, conscientiously believing the same to be true and by virtue of the Act passed in the thirty-seventh year of Her Majesty's reign, intituled: 'An Act for the suppression of voluntary and extra-judicial oaths.'

"(Signed) H. TÉTU, Priest, C. S.

"Declared before me, notary, at Quebec, this fifth day of May, 1888.

"(Signed) CY. TESSIER, N. P."

"This is one of the solemn declarations of which mention is made in a certain deed of deposit made by me this day, before Cy. Tessier, notary, at Quebec, to the original of which deed it has remained annexed.

"Quebec, 3rd May, 1888.

"(Signed) A. D. TURGEON, S. J.

"In presence of

"(Signed) CY. TESSIER, N. P.

"A true copy,

"(Signed) CY. TESSIER, N. P."

Declaration  
of Rev. O. A.  
Marois as to  
signatures to  
letter.

"I, Cyrille Alfred Marois, Priest, Private Chamberlain of His Holiness Leo XIII, Secretary of the Archdiocese of Quebec, residing in the city of Quebec, solemnly declare that the signatures: "Giovanni Card. Simeoni Prefetto" and "D. Arciv. di Tyr Segret," at the foot of the letter or indult in the Italian and Latin languages addressed to the



Reverend Father Procurator of the Jesuits of Montreal, dated at Rome, the twenty-seventh March last (1888), and bearing the number 1590, are, severally, the signatures of Cardinal Simeoni, Prefect, and of His Lordship the Archbishop of Tyre, Secretary of the College of the Propaganda.

"And I make this solemn declaration conscientiously believing the same to be true and by virtue of the Act passed in the thirty-seventh year of Her Majesty's reign, intituled: 'An Act for the suppression of voluntary and extra-judicial oaths.'

"(Signed) C. A. MAROIS, Priest, C. S.

"Declared before me, notary, at Quebec, this fifth of May, 1888.

"(Signed) CY. TESSIER, N P"

"This is one of the solemn declarations mentioned in a certain deed of deposit made by me, this day, before Cy. Tessier, notary, at Quebec, to the original of which deed it has remained annexed.

"Quebec, 5th May, 1888.

"(Signed) A. D. TURGEON, S. J.

"In presence of

"(Signed) CY. TESSIER, N. P.

"A true copy,

"(Signed) CY. TESSIER, N. P."

Whereas it is expedient to put an end to the uneasiness which exists in this Province, in connection with the question of the Jesuits' Estates, by settling it in a definite manner: Therefore, Her Majesty, by and with advice and consent of the Legislature of Quebec, enacts as follows:—

1. The aforesaid arrangements, entered into between the Premier and the Very Reverend Father Turgeon, are hereby ratified, and the Lieutenant-Governor in Council is authorized to carry them out according to their form and tenor.

Certain agreements ratified and may be carried out.

2. The Lieutenant-Governor in Council is authorized to pay, out of any public money at his disposal, the sum of four hundred thousand dollars, in the manner and under the conditions mentioned in the documents above cited, and to make any deed that he may deem necessary for the full and entire execution of such agreement.

Certain sum may be paid out for purpose of such settlement.

3. The Lieutenant-Governor in Council is authorized to transfer to the Society of Jesus, a society incorporated under the Act of this Province, 50 Victoria, chapter 28, all the rights of this Province in and to Laprairie Common.

Government rights to Laprairie Common may be transferred to Society of Jesus.

On settlement being effected certain sum to be paid over to Protestant Committee of Council of Public Instruction. Investment of such sum and application of interest thereof.

4. On such settlement being effected, the Lieutenant-Governor in Council may pay, out of any public money at his disposal, a sum of sixty thousand dollars to the Protestant Committee of the Council of Public Instruction to be invested by the said Committee.

The interest from said investment shall be annually apportioned by the Protestant Committee, with the approval of the Lieutenant-Governor in Council, among the Protestant institutions of superior education, in addition to and in the same manner as any sums now granted by law for the purpose of Protestant superior education in this Province.

Powers of Lieutenant-Governor in carrying out such agreements.

5. The Lieutenant-Governor in Council is authorized to enforce wherever necessary all claims that may become due to the Government of the Province owing to the execution of the aforesaid agreements.

Property known as "Jesuits' Estates" may be disposed of by Lieutenant-Governor in Council.

6. The Lieutenant-Governor in Council is hereby authorized to dispose, in the manner he deems most advantageous to the Province, of the whole of the property, movable and immovable, interests and rights, generally whatsoever of the Province upon the said property known as the Jesuits' Estates.

48 V., c. 10, to apply.

7. The Act of the Legislature 48 Victoria, chapter 10, notwithstanding section 5 of the said Act, and notwithstanding any other Act to the contrary, shall apply to the said estates, the proceeds whereof may be applied also, notwithstanding any Act to the contrary, for the above mentioned purposes, or for any other purposes approved by the Legislature.

Application of proceeds arising from disposal of such property.

SECRETARY OF STATE, CANADA, OTTAWA, 14th March, 1889.

The Act of the Legislature of the Province of Quebec of the session of 1888, chap. 13, known as "The Jesuits' Estates Act," was received in this Department, together with the other Acts of the same session, on the 8th August, 1888.

G. POWELL, *Under Secretary of State.*

GOVERNMENT HOUSE, QUEBEC, 15th October, 1888.

SIR,—Among the Acts of the last session of the Legislature of this Province, of which copies were transmitted to you the 8th of August last, according to law, is found the one intituled "An Act relating to the question of the settlement of the Jesuits' Estates," Chapter 13, of 51-52 Victoria.

My Government for urgent reasons desire to know without delay, the intention of the advisers of His Excellency the Governor General, as to the exercise of the right of disallowance with reference to this Act. Under these circumstances, I request you to inform me of their intention as soon as possible.

I have the honor to be, Sir, your obedient servant,

A. R. ANGERS, *Lieutenant Governor.*

The Honorable the Secretary of State, Ottawa.

DEPARTMENT OF THE SECRETARY OF STATE, CANADA,

OTTAWA, 15th October, 1888.

SIR,—I have the honor to acknowledge the receipt of your despatch of yesterday, conveying the information to the Federal Government, that Your Government for urgent reasons desire to know, without delay, the intention of the advisers of His Excellency the Governor General as to the exercise of the right of disallowance, with reference to the Act concerning the settlement of the question of the Jesuits' Estates, Chapter 13, of 51-52 Victoria, and to inform you that this request will be considered without delay.

I have the honor to be, Sir, your obedient servant,

P. PELLETIER, *Under Secretary of State.*

His Honor, the Lieut. Governor of the Province of Quebec, Quebec.

*REPORT of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 19th January, 1889.*

The Committee of the Privy Council have had under consideration the annexed report dated 16th January, 1889, from the Minister of Justice, upon the Acts of the Legislature of the Province of Quebec, passed in the Session of 1888, recommending that the said Acts (a schedule of the titles of which is hereto annexed) be left to their operation.

The Committee concur in the above recommendation and advise that the Secretary of State be authorized to transmit a copy of this Minute, if approved, to the Lieutenant Governor of Quebec for the information of his Government.

JOHN J. MCGEE, *Clerk, Privy Council.*

DEPARTMENT OF JUSTICE, CANADA, OTTAWA, 16th January, 1889.

*To His Excellency the Governor General in Council :*

The undersigned having had under consideration the Acts of the Legislature of the Province of Quebec passed in the Session held in the year 1888, the titles of which Acts are mentioned in the Schedule hereto, respectfully recommends that they be left to their operation.

JOHN S. D. THOMPSON, *Minister of Justice.*

#### SCHEDULE.

Chap. 1. An Act granting to Her Majesty the moneys required for the expenses of the Government, for the financial years ending on the 30th June, 1888, and on the 30th June, 1889, and for other purposes connected with the public service.



Chap. 3. An Act to provide for the replacing of destroyed originals of the Statutes.

Chap. 4. An Act to reduce the quorum of the Legislative Assembly to fifteen members.

Chap. 5. An Act to provide for the replacing of the Speaker of the Legislative Assembly in certain cases.

Chap. 6. An Act respecting the Legislative allowance.

Chap. 7. An Act to declare indemnified certain members of the Legislative Assembly.

Chap. 8. An Act respecting the appointment of a President of the Executive Council of the Province.

Chap. 10. An Act to amend the Quebec License Law.

Chap. 11. An Act to impose certain direct taxes on certain commercial corporations.

Chap. 12. An Act to provide for the settlement of certain questions in dispute between the Provinces of Quebec and Ontario by means of arbitration.

Chap. 13. An Act respecting the settlement of the Jesuits' Estates.

Chap. 14. An Act to amend the Act 48 Vic., Chap. 7, respecting Agriculture.

*REPORT of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 22nd January, 1889.*

On a report dated 16th January, 1889, from the Minister of Justice stating with reference to a Petition from the Dominion Evangelical Alliance and also to a Petition from the Presbytery of Montreal in connection with the Presbyterian Church in Montreal, praying for the disallowance of an Act passed at the last session of the Legislature of the Province of Quebec, entitled: "An Act respecting the settlement of the Jesuit Estates," that before the Petitions in question came before him for his consideration, he had already recommended to Your Excellency in Council that the Act in question should be left to its operation.

The Minister further states that the Memorials referred to have not convinced him that such recommendation should be changed. The subject-matter of the Act is one of Provincial concern only, having relation to a fiscal matter entirely within the control of the Legislature of Quebec.

The Committee concurring in the above report of the Minister of Justice, advise that the Secretary of State be authorized to communicate a copy of this Minute, if approved, to the Petitioners for their information.

JOHN J. MCGEE, *Clerk Privy Council.*

DEPARTMENT OF JUSTICE, CANADA, OTTAWA, 16th January, 1889.

*To His Excellency the Governor General in Council:*

The undersigned, to whom has been referred a Petition to Your Excellency from the Dominion Evangelical Alliance, and also a Petition from the Presbytery of Montreal in connection with the Presbyterian Church in Montreal, praying for the disallowance of an Act passed at the last session of the Legislature of the Province of Quebec, entitled: "An Act respecting the settlement of the Jesuit Estates," has the honor to report as follows:—

Before the Petitions in question came before him for his consideration the undersigned had already recommended to Your Excellency, that the Act in question should be left to its operation.

The Memorials referred to have not convinced the undersigned that that recommendation should be changed. The subject-matter of the Act is one of Provincial concern only, having relation to a fiscal matter entirely within the control of the Legislature of Quebec.

The undersigned respectfully recommends that a copy of this report, if approved, be sent to the Petitioners for their information.

JOHN S. D. THOMPSON, *Minister of Justice.*

92 SHUTTER STREET, MONTREAL, 12th October, 1888.

To the Honorable J. A. CHAPLEAU, Secretary of State.

DEAR SIR,—I am instructed to forward the accompanying Memorial for presentation to His Excellency the Governor General in Council.

I have the honor to be, your obedient servant,  
JAMES PATTERSON, *Clerk of Montreal Presbytery.*

*To His Excellency the Governor General in Council assembled:*

The Memorial of the undersigned humbly sheweth:—

That the Presbytery of Montreal, of the Presbyterian Church in Canada, did, at a meeting held in the David Morrice Hall, Montreal, on the third day of October, one thousand eight hundred and eighty-eight, adopt the subjoined resolutions, which we are instructed to forward for the consideration of Your Excellency in Council. We beg respectfully to call the attention of Your Excellency in Council to the important subject embraced in said resolutions; and we crave that such action be taken in the premises as to Your Excellency in Council may seem meet.

And your Memorialists, as in duty bound, will ever pray.

JAMES FRASER, *Moderator,*  
JAMES PATTERSON, *Presbytery Clerk,*  
D. H. MACVICAR, D.D., LL.D.,  
ROBERT CAMPBELL, D.D.,  
D. COUSSIRAT, B.A., B.D.  
JOHN CAMPBELL, M.A., S.T.P.,  
RIEUL P. DUCLOS,  
DAVID W. MORRISON,

*Members of Committee.*

## RESOLUTIONS.

Whereas, by recent legislation of the Province of Quebec, a large sum of money was voted out of what is known as the "Jesuits' Estates," which upwards of a century ago became public property, and has been since looked to as available for educating the people of the Province, irrespective of race or religious belief—\$400,000 to the Society of Jesus, and \$60,000 to the Protestant Committee of the Council of Public Instruction.

The Presbytery of Montreal avails itself of this opportunity of expressing strong disapproval of the same, and of declining, so far as it has a right to voice public opinion, to be a party to it.

The Presbytery further expresses astonishment that the Provincial Legislature, not content with granting powers of incorporation to the Jesuits, should have gone out of its way to foster, in a mixed community, a society which has proved itself the enemy of civil and religious liberty all over the world, and which even the Governments of Roman Catholic States have found it necessary to expel.

The Presbytery also protests earnestly against the action of the Quebec Legislature in violating the principle of religious equality which was established in Canada many years ago, by bestowing public money upon a society of a distinctively religious character, like that of the Jesuits.

Therefore, be it resolved, that this Presbytery memorialize the Governor General in Council to take the foregoing preamble and resolutions into consideration and adopt such measures as will protect the rights of the people of this Province in the premises.



*To His Excellency The Right Honorable Frederick A. Stanley, Baron Stanley of Preston,  
G.C.B., Governor General of the Dominion of Canada, in Council :*

The Petition of the undersigned humbly sheweth :

That whereas at a meeting of the Evangelical Alliance for the Dominion of Canada held in the City of Montreal, in the month of October, in the year of Our Lord one thousand eight hundred and eighty-eight, certain matters touching the interests of the several Protestant Churches were taken into serious consideration, among which was "The Act respecting the Jesuits' Estates," passed by the Legislature of the Province of Quebec and assented to on the 12th of July, 1888, now lying before Your Excellency in Council for consideration ;

And whereas "the Estates of that (the Jesuit) Order were originally granted by the King of France for the purpose of educating the natives of the country," and the Jesuits were merely depositaries thereof for the purposes of the education of the youth of the Province ;

And whereas the Order of the Jesuits was suppressed in France in 1761 and its property taken by the King for the purposes of education ;

And whereas the Royal Instructions to the Governor General of Canada in 1774 directed "that the Society of the Jesuits should be suppressed and dissolved and no longer continue a body corporate and politic, and that all their rights, privileges and property should be vested in the Crown ;"

And whereas the House of Assembly for the Province of Quebec repeatedly petitioned the King or his Representative that the said estates might be devoted, according to their primitive destination, for the education of the youth of this country, and be placed at the disposal of the Legislature for that purpose ;

And whereas on the 7th of July, 1831, Lord Goderich, then Secretary for the Colonies to King William IV, addressed a despatch to His Majesty's Representative in Quebec in which he stated that "the Jesuits' Estates were, on the dissolution of that Order, appropriated to the education of the people," and further, "that the revenue which might result from that property should be regarded as inviolably and exclusively applicable to that object ;" and moreover, "that the King, cheerfully and without reserve, confided the duty of the application of those funds for the purposes of education to the Provincial Legislature ;"

And whereas the disposal of the said estates has been from time to time impeded by the "energetic representations" of the authorities of the Roman Catholic Church, asserting a claim to their "ownership ;"

And whereas the Government of the Province of Quebec, in the negotiations with the representative of the present Order of the Jesuits in the Province of Quebec forming the basis of the Jesuits' Estates Act of 1888, expressly declared "it did not recognize any civil obligation, but merely a moral obligation, in this respect," and proceeded to treat on the amount and terms of compensation in money on condition of receiving a full renunciation of all further claims on the said estates ;

And whereas by the said Jesuits' Estates Act of 1888, the Lieutenant Governor in Council is authorized to pay the sum of four hundred thousand dollars "out of any public money at his disposal" for the purpose of such compensation, "to remain as a special deposit until the Pope has ratified the said settlement and made known his wishes respecting the distribution of such amount in this country ;"

And whereas the said Jesuits' Estates Act recognizes powers in the Holy See that are perilous to the supremacy of the Queen, in thus requiring its consent to legislation within Her dominions, and the application of public funds, and in accepting such terms as "The Pope allows the Government to retain the proceeds of the sale of the Jesuits' Estates as a special deposit to be disposed of with the sanction of the Holy See ;"

And whereas your Petitioners contend that not even a "moral obligation" exists to make "compensation" for property duly and lawfully taken by the Crown, to the extinction of all "civil obligation ;"



And whereas, from the whole tenor of the negotiations on this matter, it is to be surely expected that the Holy See will apportion at least a large share of the aforementioned \$400,000 to the Order of the Jesuits' which does not represent the Roman Catholic Church or population of Quebec as a whole but itself alone, and is confined by law to two Archdioceses and one Diocese;

And whereas no stipulation is made that the said \$400,000 shall be devoted to Public Education or any account be rendered to the Government of the use made of such public money;

And whereas any further proceeds of the sale of the Jesuits' Estates are not secured for the purposes of education, but pass into the general revenue of the Province;

And whereas, finally, the appropriation in the said Jesuits' Estates Act of the sum of Sixty Thousand Dollars to be invested by the Protestant Committee of the Council of Public Instruction for the benefit of Protestant Institutions of Superior Education, though urgently needed and justly due, though unlike the \$400,000 available for the entire population of one class alike, and though, by contrast again to be administered under public accountability, is liable nevertheless to be interpreted as making the Protestant Community consenting and approving parties to that appropriation of the \$400,000 to which the grave objections above recited have to be made;

Therefore, that your Petitioners, being duly authorized on this behalf by the aforesaid Evangelical Alliance, do enter their solemn protest against the Act in question being carried into effect.

And humbly pray that it may be disallowed by Your Excellency in Council as provided by the British North America Act of 1867.

JNO. MACDONALD, *President.*

WM. JACKSON, *Secretary.*

MONTREAL, 10th January, 1889.

THE MANSE, KINGSTON, KENT Co., N.B., 19th Jan., 1889.

RIGHT HONORABLE SIR,—I have the honor to forward through you to the Government of the Dominion of Canada a petition from the Presbytery of Miramichi, of the Canadian Presbyterian Church, in reference to the grant recently voted by the Quebec Government. By bringing it under the notice of your Government, you will greatly oblige,

Your humble servant,

WM. HAMILTON.

Right Honorable Sir JOHN A. MACDONALD, Ottawa.

Unto the Honorable Sir John A. Macdonald, and other members of the Government of the Dominion of Canada, the petition of the Miramichi Presbytery in connection with the Presbyterian Church in Canada, humbly sheweth:

Whereas a grant of four hundred thousand dollars has been made by the Government of Quebec on behalf of the educational institutions in that Province under the control of the Jesuits;

And whereas the granting of such a sum from the common Exchequer of the Province to a particular denomination is manifestly unjust to the residue of the community, and imposes upon the Protestants of Quebec a burden which is irksome and unfair;

And whereas the said grant is calculated to aid the recipients in the dissemination of principles which, in the opinion of several of the Governments of Europe, are destructive of the peace and well-being of the nation;

May it therefore please your Honorable Government to veto the Act conferring said grant: and your petitioners will ever pray.

In name and by authority of Presbytery.

WM. HAMILTON, *Moderator pro tem.,*

N. McKAY, *Clerk.*

KINGSTON, Kent Co., N.B., 15th January, 1889.

At Newcastle and within the Hall of St. James Church, there on the 2nd day of January, 1889, the Presbytery of Miramichi being met and constituted, Rev. Wm. Hamilton in the chair.

# INTER ALIA :

Rev. Wm. Hamilton and Rev. N. McKay were appointed a committee to forward to the Dominion Government a protest against the action of the Quebec Government in handing over a very large amount of public money to the Jesuits in that Province, and a petition praying the Dominion Government to disallow the Act conveying the said grant.

Extract from the Presbytery minutes by

N. MCKAY,  
*Pres. Clerk.*

CHATHAM, 15th January, 1889.

HOUSE OF COMMONS, CANADA, OTTAWA, 28th February, 1889.

SIR,—I send you herewith enclosed, a petition to His Excellency the Governor General from the inhabitants of the Village of Huntingdon and its vicinity in the Province of Quebec.

I have the honor to be, Sir, your obedient servant,

J. SCRIVER, M.P.

*For Co Huntingdon, Prov. of Quebec*

Capt. the Hon. CHARLES COLVILLE, Sec. to His Excellency the Governor General.

*To His Excellency the Right Honorable Frederick A. Stanley, Baron Stanley of Preston, G.C.B., Governor General of the Dominion of Canada &c., &c., &c., in Council.*

The petition of the inhabitants of the Village of Huntingdon and its vicinity in the Province of Quebec, humbly sheweth :

That by the British North America Act of 1867, section 93, sub-section 3, it is provided that "An appeal shall lie to the Governor General in Council from any act or decision of any Provincial Authority affecting any right or privilege of the Protestant minority of the Queen's subjects in relation to education."

That a case for such an appeal has arisen in the passing by the Legislature of the Province of Quebec in 1888, of an Act respecting the settlement of the "Jesuits Estates," whereby a large and valuable property pledged by the "Crown" inviolably and exclusively to public education, is diverted from that object and made over to the general public funds of the Province.

That as the Jesuits' Estates were given over by the Crown to be held in perpetuity for the education of the youth of Lower Canada, your petitioners protest alike against their sale and the distribution of the proceeds among Sectarian institutions.

Wherefore your petitioners earnestly pray Your Excellency to intervene in such manner as may to your wisdom seem best, in order that justice may be done in the premises.

And your petitioners, as in duty bound, will ever pray.

In name and by order of the petitioners.

ANDREW McCALLUM, *Chairman.*

JAMES WATSON, *Secretary.*

Given at Huntingdon, Quebec, 27th February, 1889.

*To His Excellency the Right Honorable Sir Frederick Arthur Stanley, Baron Stanley of Preston, Governor General of Canada, in Council.*

MAY IT PLEASE YOUR EXCELLENCY,—

By the authority and acting on behalf of the members of Loyal Orange District Lodge No. 4, Ottawa, loyal subjects of Her Most Gracious Majesty, the petition of the undersigned humbly sheweth :



That whereas your petitioners have heard with surprise and alarm that on the twelfth day of July, 1888, an Act entitled: "The Act respecting the Jesuits' Estates," which had been passed at its last Session by the Legislature of the Province of Quebec, received the assent of His Honor the Lieutenant Governor. That the said Act authorizes the Lieutenant Governor of that Province to pay out of any public money at his disposal the sum of \$400,000 for the purpose of compensating the present Society of Jesus for certain estates which had formerly been given in trust by the Kings of France, for the education of the inhabitants of Canada, to the former Society of Jesus, but which, in consequence of the dissolution of the said Society in 1774, had been confided to the Provincial Legislature, by command of His late Majesty King William IV, in the year 1831, for the purposes of education and that the revenue resulting from the estates might be recorded as inviolably and exclusively devoted to that object.

That the said Act furthermore provides "that the said sum of \$400,000 shall remain as a special deposit until the Pope has ratified the said settlement and made known his wishes respecting the distribution of such amount in this country," thereby recognizing the authority of a foreign Bishop in the disposal of public funds derived from the taxation of the whole population of the Province of Quebec, Protestant as well as Roman Catholic, in contempt of the supremacy of the Crown as well as of the rights of the rising generation of Quebec.

That the present Society of Jesus lately incorporated in Quebec, can in neither a legal nor a moral sense be considered as the representative of the former Society of the same name, which was dissolved by a Bull of Pope Clement XIV many years before the oldest member of the present Society was born.

That the interference of the Jesuits in political affairs and their evil influence on public and private morality, has within the last 200 years been found so unsupportable wherever established, as to compel the enactment of laws repelling them from almost every European country, Roman Catholic as well as Protestant; and that in Quebec itself the Act for their incorporation passed by the Provincial Legislature in 1887, was most strenuously opposed by the highest Roman ecclesiastic in Canada, and by many of the most learned, devoted and loyal Clergymen and laymen of the Roman Faith in Quebec.

That we protest most respectfully, but most earnestly, against any grant of the public money of Canadians to men who maintain in their authorized text books that no obedience is due by Christians to the laws of so-called heretical Sovereigns, meaning by that term, Protestant monarchs like our present Gracious Majesty.

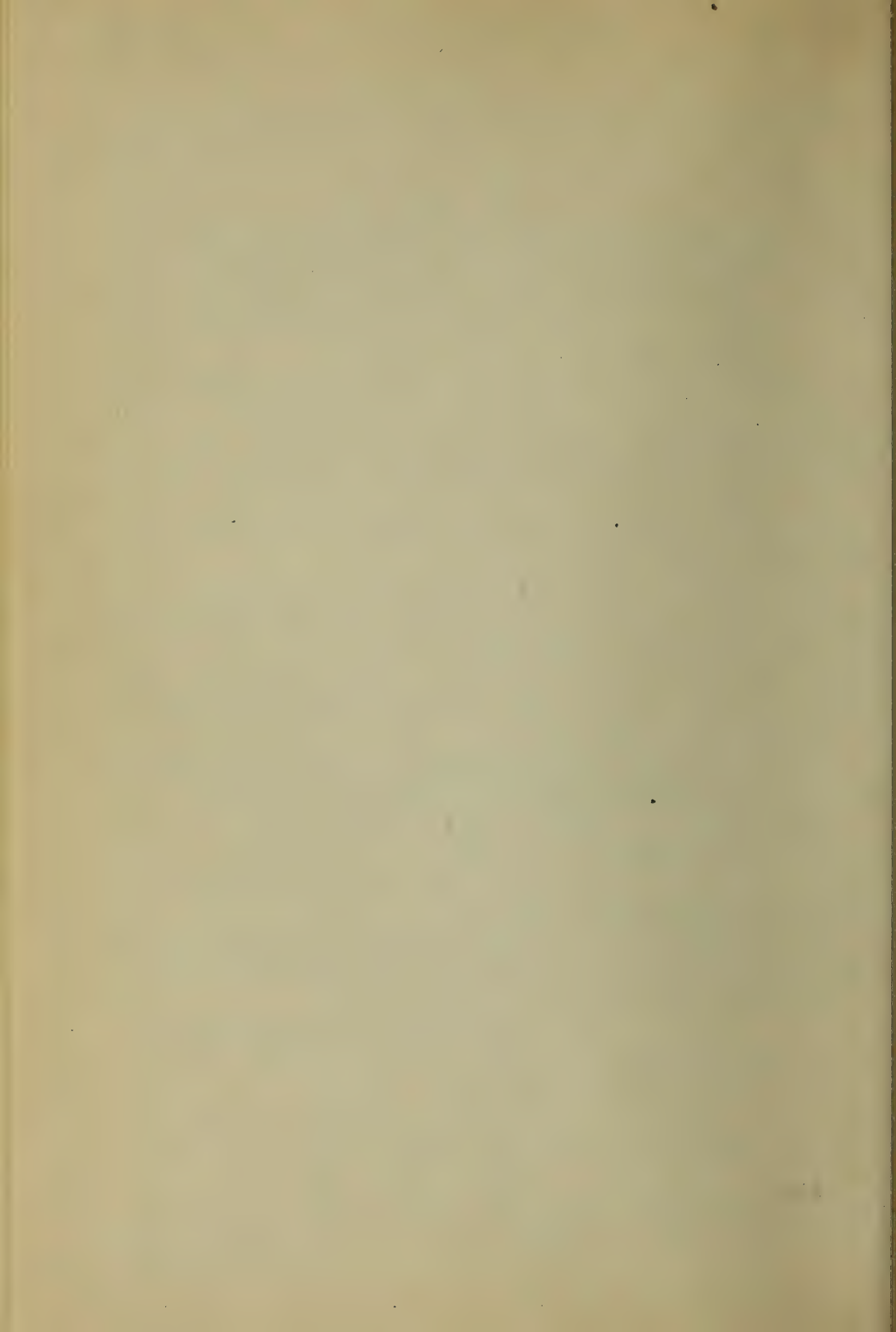
That, apart from these weighty considerations, no grant of public money has for many years been made to any denominational Associations, and that the initiation of a contrary policy in our mixed community would logically and inevitably lead to constant disputes and struggles for the endowment from the public Treasury of every kind of religious institutions.

We, therefore, respectfully request Your Excellency that, taking these and other weighty reasons into your serious consideration, you may be pleased to refuse your assent to the Act of the Legislature of Quebec respecting the Jesuits' Estates.

And we, your petitioners, as in duty bound, will ever pray.

WILLIAM CHERRY, *District Master.*  
T. H. WHITE, *District Secretary.*





# RETURN

(64)

To an ORDER of the HOUSE OF COMMONS, dated the 25th February, 1889, showing public buildings erected in various places throughout the Dominion, from 1st July, 1867, to 1st January, 1889; giving date of first appropriation made for same, locality in which erected, and total cost to date of 1st January, 1889.

By Command.

HECTOR L. LANGEVIN,

*Acting for the Secretary of State.*

OTTAWA, 3rd April, 1889.

LIST of buildings erected throughout the Dominion of Canada, from 1st July, 1867, to 1st January, 1889, also statement of cost of construction or improvement of same, &c., as called for by order of the House of Commons (Letter No. 96024), dated 25th February, 1889.

	Cost to 1st January, 1889.	Fiscal year when first Appropri- ation was made.	Remarks.
	\$ cts.		
NOVA SCOTIA.			
Amherst Post Office, &c.....	38,331 67	1883-84	
Antigonish do .....	5,546 85	1883-84	
Baddeck do .....	14,006 74	1883-84	
Halifax Dominion Building.....	104,149 57	1871-72	
do Lawlor's Island Quarantine Station.....	25,269 14	1870-71	
Lunenburg Marine Hospital .....	6,502 25	1878-79	
Nappan Experimental Farm (under construction).....	6,396 80	1887-88	
New Glasgow Post Office, &c.....	43,285 61	1881-82	
North Sydney do .....	25,769 88	1883-84	
Pictou Custom House.....	27,743 04	1872-73	
do Marine Hospital.....	12,410 36	1874-75	
do Quarantine Station.....	4,090 00	1874-75	
Point Edward (Sydney) Station.....	7,417 71	1880-81	
Sydney (South) Marine Hospital.....	11,514 61	1874-75	
Truro Post Office, &c.....	36,619 11	1883-84	
Windsor do .....	32,347 29	1883-84	
Yarmouth Marine Hospital.....	3,550 00	1874-75	
do Post Office, &c.....	41,771 62	1883-84	
do Quarantine Station .....	3,438 64	1874-75	
Total, Nova Scotia.....	450,460 89		

## LIST of Buildings Erected, &amp;c.—Continued.

	Cost to 1st January, 1889.	Fiscal year when first Appropri- ation was made.	Remarks.
	\$ cts.		
PRINCE EDWARD ISLAND.			
Charlottetown Dominion Buildings (old).....	69,000 00	1873-74	
do do (new).....	97,366 32	1883-84	
do do (temporary).....	6,207 14	1883-84	
do Marine Hospital.....	1,940 41	1874-75	
Montague Post Office, &c.....	8,242 87	1883-84	
Northumberland Strait Mail Buildings (proportion of expenditure).....	1,310 05	1884-85	
Souris Marine Hospital.....	4,458 62	1875-76	
Summerside Post Office, &c.....	34,322 11	1883-84	
Total, Prince Edward Island.....	222,847 52		
NEW BRUNSWICK.			
Bathurst Post Office, &c.....	29,863 88	1883-84	
Carleton (St. John), Post Office, &c.....	14,121 64	1883-84	
Chatham Post Office, &c.....	14,028 84	1872-73	
Dalhousie do (under construction).....	2,069 06	1888-89	
Dorchester Penitentiary.....	463,268 65	1875-76	
Fredericton Barracks.....	15,295 57	1883-84	
do Post Office, &c.....	30,521 57	1878-79	Appropriation, mili- tary buildings.
Middle Island Quarantine Station.....	4,286 55	1874-75	
Moncton Post Office, &c.....	45,194 52	1883-84	
Newcastle Custom House.....	4,830 00	1872-73	
do Post Office, &c.....	47,655 47	1883-84	
Portland do.....	10,956 49	1883-84	
St. Andrew's Marine Hospital.....	5,588 44	1874-75	
St. John Custom House (old).....	75,797 88	1869-70	Destroyed by fire on 20th June, 1877.
do do (new).....	327,705 02	1878-79	
do Fort Dufferin.....	8,064 50	1882-83	
do Marine Hospital (Partridge Island).....	49,338 54	1880-81	
do Military Storehouse.....	13,020 37	1881-82	
do Post Office (old).....	178,940 86	1872-73	do
do do (new).....	173,725 71	1878-79	
do Quarantine Station (Partridge Island).....	7,308 46	1871-72	
do Savings Bank (old).....	47,784 28	1872-73	do
do do (new).....	45,290 80	1878-79	
St. Stephen's Post Office, &c.....	28,867 90	1883-84	
Sussex do do.....	23,325 26	1881-82	
Westcock Marine Hospital.....	3,416 93	1873-74	
Woodstock Post Office, &c.....	39,953 27	1880-81	
Total, New Brunswick.....	1,710,220 46		
QUEBEC.			
Aylmer Post Office, &c. (under construction).....	6,509 10	1838-39	
Chambly Forts (restoration).....	1,317 30	1884-85	
Chicoutimi Marine Hospital.....	19,486 45	1881-82	Appropriation, Mili- tary Buildings.
Coaticook Post Office, &c. (under construction).....	18,267 30	1886-87	
Grosse Isle Quarantine Station.....	83,513 98	1871-72	
Hull Post Office, &c. (old).....	30,208 60	1881-82	Destroyed by fire on 10th May, 1886.
do do (new).....	29,046 90	1885-86	
Joliette Post Office (under construction).....	11,018 16	1888-89	
Lévis Immigrant Sheds.....	67,549 19	1871-72	
Maria Indian Reserve Chapel.....	500 00	1887-88	



LIST of Buildings Erected, &c.—*Continued.*

	Cost to 1st January, 1889.	Fiscal year when first Appropriation was made.	Remarks.
	\$ cts.		
<b>QUEBEC—Concluded.</b>			
Montreal Armouries.....	149,434 74	1884-85	
do Custom House .....	257,029 88	1870-71	
do Drill Hall .....	113,156 14	1883-84	
do Examining Warehouse .....	338,332 71	1874-75	
do Immigrant Sheds .....	17,811 15	1871-72	
do Inland Revenue Offices.....	{ 2,667 87 }	1880-82	
do Post Office .....	31,603 87		
do .....	631,061 14	1871-72	
Quebec Artillery Barracks.....	4,659 81	1880-81	
do Cartridge Factory .....	19,590 35	1880-81	
do Citadel Buildings .....	6,428 60	1882-83	
do Drill Hall.....	85,564 79	1883-84	
do Examining Warehouse .....	77,448 11	1883-84	
do Immigrant Buildings .....	48,723 72	1871-72	
do Observatory (re-building).....	10,667 23	1873-74	
do Post Office.....	96,003 32	1870-71	
Sherbrooke Drill Shed.....	573 58	1882-83	
do Immigrant Station.....	1,334 40	1872-73	
do Post Office, &c.....	66,604 72	1880-81	
Sorel do .....	48,683 85	1883-84	
St. Jérôme Post Office, &c. (under construction).....	5,733 36	1886-87	
St. John's Barracks.....	15,450 42	1883-84	
do Post Office .....	16,224 21	1878-79	
St. Vincent de Paul Penitentiary.....	378,625 72	1871-72	
Three Rivers Post Office (formerly Custom House).....	27,550 99	1872-73	
Valleyfield Inland Revenue Building.....	1,707 10	1885-86	
Total Quebec .....	2,720,088 76		
<b>ONTARIO.</b>			
Almonte Post Office, &c. (under construction).....	6,432 79	1888-89	
Amherstburg Post Office, &c .....	34,510 53	1883-84	
Barrie do .....	46,722 17	1883-84	
Belleville Examining Warehouse.....	3,561 02	1883-84	
do Post Office, &c.....	63,633 99	1880-81	
Berlin do .....	36,772 55	1883-84	
Brampton do (under construction).....	4,381 77	1888-89	
Brantford do .....	34,180 47	1878-79	
Brockville do .....	55,547 91	1881-82	
Cayuga do (under construction) .....	9,198 88	1888-89	
Chatham do .....	58,658 71	1881-82	
Clifton do .....	43,614 85	1883-84	
Cobourg do .....	19,632 81	1882-83	
Cornwall do .....	62,717 87	1881-82	
Galt do .....	34,374 33	1883-84	
Gananoque do .....	22,287 62	1882-83	
Guelph do .....	33,883 94	1876-77	
Hamilton Drill Hall .....	55,507 90	1882-83	
do Immigrant Shed.....	6,738 78	1874-75	
do Post Office (new).....	347,655 84	1881-82	
Kingston Military Buildings and Fortifications.....	113,105 55	1874-75	
do Immigrant Buildings.....	4,024 08	1871-72	
do Military College.....	110,049 09	1875-76	
do Penitentiary.....	147,417 78	1878-79	
Lindsay Post Office, &c. (under construction).....	15,087 86	1886-87	
London Custom House.....	115,672 03	1870-71	

Appropriation Military Buildings.

## LIST of Buildings Erected, &amp;c.—Continued.

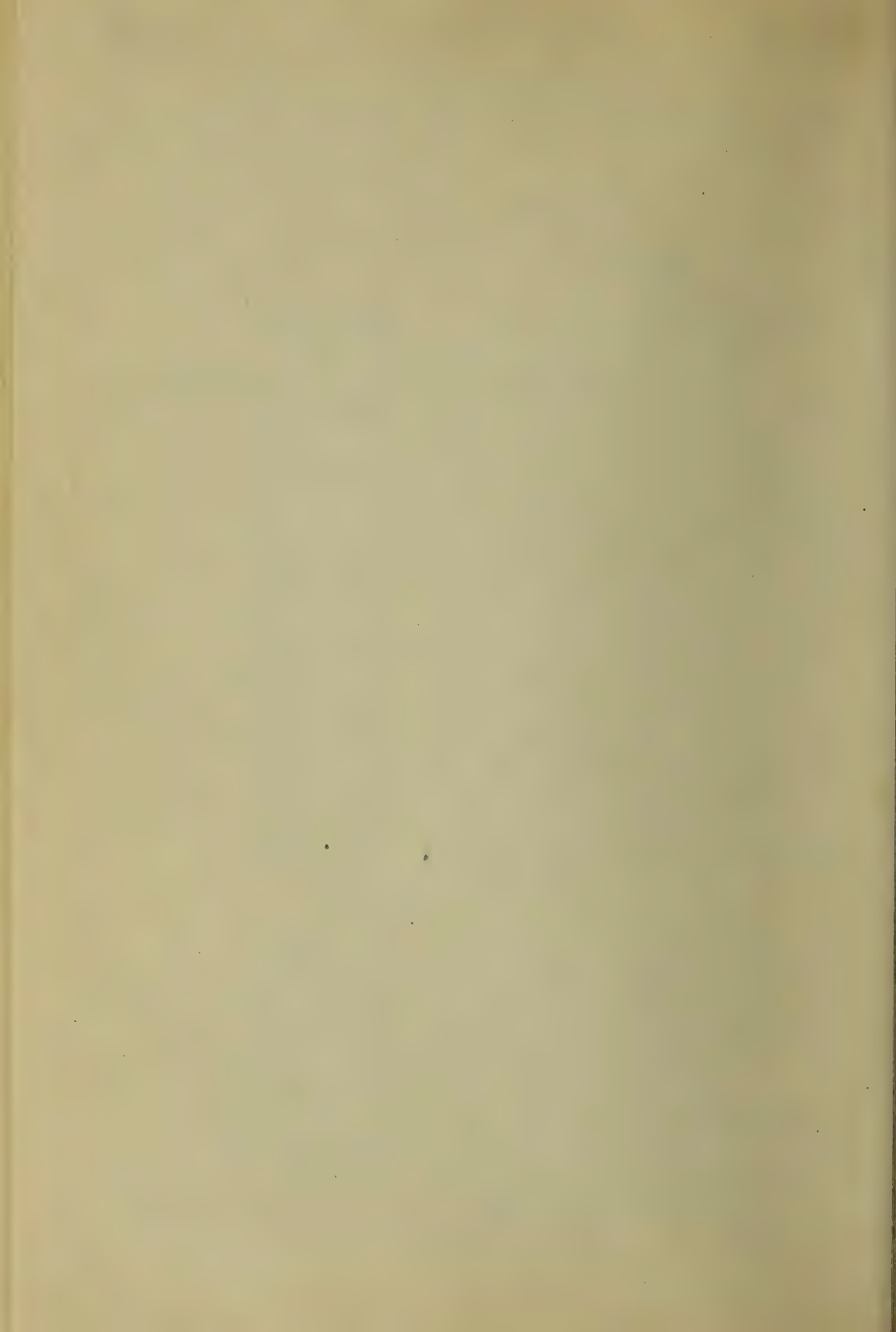
	Cost to 1st January, 1889.	Fiscal year when first Appropri- ation was made.	Remarks.
	\$ cts.		
<b>ONTARIO—Concluded.</b>			
London Immigrant Shed.....	7,425 86	1872-73	
do Infantry School.....	122,851 10	1886-87	
Napanee Post Office, &c.....	18,809 09	1886-87	
Orangeville do.....	21,114 94	1883-84	
Ottawa Drill Hall.....	30,608 33	1878-79	
do Experimental Farm.....	167,677 50	1886-87	
do Geological Museum.....	54,138 03	1880-81	
do Parliament Library.....	301,812 45	1870-71	
do Government Workshops (now Supreme Court)	67,106 01	1874-75	
do Post Office, &c.....	254,866 57	1872-73	
do Printing Bureau (under construction).....	118,946 39	1888-89	
do Victoria Hall (purchase and fitting up).....	15,326 40	1887-88	
do Wellington Street Block.....	561,005 36	1882-83	
do West Block (Deptl. Building) Extension.....	462,247 11	1874-75	
Pembroke Post Office, &c. (under construction).....	11,257 38	1886-87	
Peterboro' do.....	43,092 46	1883-84	
Point Edward Cattle Quarantine Station.....	7,591 59	1882-83	
Port Arthur Immigrant Shed.....	9,378 55	1882-83	
Port Hope Post Office, &c.....	50,737 05	1883-84	
Prescott do (under construction).....	6,906 59	1884-85	
Sarnia Immigrant Building.....	3,436 21	1882-83	
Stratford Post Office, &c.....	46,213 89	1881-82	
St. Catharines do.....	57,119 09	1880-81	
St. Thomas Drill Hall (rebuilding).....	2,854 56	1882-83	
do Post Office, &c.....	70,197 99	1881-82	
Toronto Custom House.....	237,489 80	1874-75	
do Examining Warehouse.....	339,751 95	1874-75	
do Immigrant Sheds.....	33,318 76	1870-71	
do Inland Revenue Building.....	5,060 49	1885-86	
do Post Office.....	170,013 40	1870-71	
Trenton Post Office, &c.....	22,572 26	1886-87	
Windsor do.....	71,390 43	1878-79	
Total Ontario.....	4,877,688 47		
<b>MANITOBA.</b>			
Brandon Experimental Farm (under construction).....	1,272 89	1889-90	
do Immigrant Shed.....	22,564 58	1881-82	
do Post Office.....	5,314 10	1888-89	
Emerson Immigrant Shed.....	1,186 10	1882-83	
Minnedosa do.....	1,071 50	1886-87	
Stoney Mountain Penitentiary.....	438,673 58	1873-74	
Winnipeg Custom House.....	45,439 27	1872-73	
do Dominion Lands Office.....	16,426 41	1872-73	
do Drill Shed.....	24,628 66	1884-85	
do Fort Osborne Barracks.....	8,406 83	1883-84	
do Immigrant Sheds.....	33,773 89	1871-72	
do Infantry School.....	15,188 75	1887-88	
do Post Office, &c. (old).....	43,125 31	1872-73	
do do (new).....	207,497 82	1882-83	
do do (temporary).....	11,737 78	1883-84	
do Powder Magazine.....	7,765 95	1883-84	
Total Manitoba.....	884,073 42		

Appropriation, mili-  
tary buildings.

LIST of Buildings Erected, &c.—*Concluded.*

	Cost to 1st January, 1889.	Fiscal year when first Appropri- ation was made.	Remarks.
<b>NORTH-WEST TERRITORIES.</b>			
	\$ cts.		
Banff Mounted Police Barracks.....	529 73	1889-90	
Battleford Industrial School.....	3,382 00	1875-76	
do Lieutenant Governor's Residence, &c.....	114,711 25	1877-78	
do Mounted Police Barracks.....	121,007 31	1875-76	
do Stipendiary Magistrate's Office (destroyed by fire during the rebellion).....	2,433 24	1884-85	Appropriation, pub- lic build'gs, N.W.T.
Birtle Immigrant Shed .....	1,047 50	1886-87	
Calgary do .....	6,583 67	1884-85	
do Mounted Police Barracks.....	36,514 37	1876-77	
Cypress Hill do .....	1,000 00	1887-88	
Fort McLeod do .....	75,449 61	1876-77	
Fort Pelly do .....	67,467 31	1874-75	
Fort Saskatchewan do .....	7,732 82	1885-86	
High River Industrial School.....	21,635 94	1885-86	
Indian Head Experimental Farm .....	6,142 10	1887-88	
Lethbridge Mounted Police Barracks .....	44,120 51	1885-86	
McLeod Custom House Storehouse.....	6,313 70	1887-88	
do General Hospital.....	1,000 00	1887-88	
Maple Creek Mounted Police Barracks.....	29,779 69	1883-84	
Medicine Hat Immigrant Shed.....	6,748 78	1884-85	
do Mounted Police Barracks.....	28,102 35	1885-86	
Prince Albert Court House and Jail.....	33,938 92	1883-84	
do Mounted Police Barracks .....	74,943 98	1884-85	
Qu'Appelle Immigrant Sheds.....	23,157 55	1883-84	
do Industrial School.....	42,509 07	1885-86	
do Mounted Police Barracks.....	4,534 66	1885-86	
Regina Council Chamber.....	9,877 40	1883-84	
do Court House .....	6,169 68	1886-87	
do Indian Offices .....	10,007 77	1885-86	
do Industrial School (under construction).....	419 31	1889-90	
do Jail and Lunatic Asylum .....	53,123 91	1884-85	
do Lieutenant Governor's Residence .....	19,821 44	1883-84	
do Mounted Police Barracks ..	149,517 90	1885-86	
do Post Office, &c.....	8,361 12	1885-86	
do Riding and Drill Hall.....	26,425 90	1885-86	
Touchwood Hills Mounted Police Barracks.....	413 00	1887-88	
Wood Mountain do .....	1,565 60	1887-88	
<b>Total North-West Territories.....</b>	<b>1,046,489 09</b>		
<b>BRITISH COLUMBIA.</b>			
Albert Head Quarantine Station (Vancouver).....	12,173 61	1883-84	
Nanaimo Post Office, &c.....	33,375 08	1881-82	
New Westminster Penitentiary .....	257,754 73	1873-74	
do Post Office, &c .....	26,751 63	1881-82	
Victoria Custom House.....	39,164 75	1873-74	
do Immigrant Shed.....	3,030 21	1885-86	
do Marine Hospital.....	18,635 -3	1872-73	
do Post Office.....	42,906 32	1872-73	
<b>Total British Columbia.....</b>	<b>433,791 76</b>		
<b>ENGLAND.</b>			
London High Commissioner's House ..	42,702 50	1883-84	





## RETURN

(66)

To an ORDER of the HOUSE OF COMMONS, dated the 25th February, 1889, showing the total amount of expense incurred and moneys paid up to 1st January, 1889, on account of the preparation, publication and completion :

1. Of the various lists under the Dominion Franchise Act upon which the last General Election was held ; and stating—

- (a.) The total amount paid for printing ;
- (b.) The total amount paid to Revising Barristers ;
- (c.) The total amount paid to Revising Barristers, Clerks and Bailiffs ;
- (d.) The total amount paid for all other expenses in connection with the preparation, publication and completion of the said lists ;
- (e.) Whether any claims against the Government in connection with the preparation of the lists are yet unsettled ;

2. Showing the expense incurred up to 1st February, 1889, in connection with the preparation of the second Voters' List under the Dominion Franchise Act, and stating—

- (a.) The total cost of type used, or to be used, in setting up the lists ;
- (b.) The amount paid for composition in setting up the lists ;
- (c.) The cost of paper and presswork in preparation of the lists ;
- (d.) The cost or rental of plant used in connection with the preparation of said lists up to the above date ;
- (e.) Amount of all other expenses incurred in connection with the preparation of the said lists up to 1st February, 1889.

By order.

HECTOR L. LANGEVIN,

OTTAWA, 26th March, 1889.

*Acting for the Secretary of State.*

AUDITOR GENERAL'S OFFICE, OTTAWA, 22nd March, 1889.

SIR,—I return herewith the order of the House of Commons with reference to the expenditure under Dominion Franchise Act.

In answer to Item 1 of the order I beg to submit the following statement of the expense to 1st January, 1889, on account of the preparation, publication and completion of the Lists upon which the last General Election was held :—

(a.)	Amount paid for printing.....	\$174,340 68
(b.)	do revisors' salaries.....	93,767 94
(c.)	do clerks and bailiffs.....	79,494 93
(d.)	do other expenses.....	67,318 21

Total expense to 1st January, 1889..... \$414,921 76

(e.) There are claims still unsettled amounting to... 5,264 49

I have the honor to be, sir, your obedient servant,

J. L. McDOUGALL, *Auditor General.*

G. POWELL, Esq., Under Secretary of State.

DEPARTMENT OF PUBLIC PRINTING AND STATIONERY,

OFFICE OF THE QUEEN'S PRINTER AND CONTROLLER OF STATIONERY,

OTTAWA, 13th March, 1889.

SIR,—In reply to your application to be furnished with any information to be derived from the records of this department, to complete a return to the order of the House of Commons showing the expense incurred up to February, 1889, in connection with the preparation of the second voters' lists, under the Dominion Franchise Act,

I have the honor to submit the following statement :—

(a.)	Type and other material.....	\$63,849 80
(b.)	Composition and presswork .....	18,511 04
(c.)	Paper .....	292 11
(d.)	Rent and steam power.....	1,413 00
(e.)	Proof reading.....	666 00
	Ink.....	87 50
	Stationery, &c .....	6 29
	Revising copy for printers, &c .....	885 50
	Erection of shed, &c .....	601 80

\$86,313 04

I have the honor to be, sir, your obedient servant,

B. CHAMBERLIN, *Queen's Printer and Controller of Stationery.*



## RETURN

(63)

To an ADDRESS of the SENATE, dated the 19th day of March, 1889, for a list giving the names of the Veterans of the War of 1812, actually living, with their place of residence and the amount of their respective pensions.

By Command.

HECTOR L. LANGEVIN,

*Acting for the Secretary of State.*

OTTAWA, 10th April, 1889.

LIST of the Veterans of the War of 1812, who received \$30, voted by Parliament during the Session of 1888.

George Annable, Aultsville, Stormont, Ont.  
 Augustin Asselin, Côteau Station, Que.  
 Alexis Aubin, St. Félix de Valois, Que.  
 Eli Babcock, Harrowsmith, Ont.  
 Aloah Bennett, Wolfe Island, Ont.  
 Jean Marie Bissonnette, Fournier, Ont.  
 Joachim Bissonnette, St. Eugène, Ont.  
 Elise Boivin, St. Iréné, Que.  
 Conrad Bougard, Picton, Ont.  
 François Boucher, Waterloo, Que.  
 Daniel Cameron, Brownsdale, U.S.A.  
 Amos Card, Moscow, Ont.  
 Gabriel Cedilot, St. Zotique, Que.  
 J. B. Chalifoux, Ste. Rose, Que.  
 S. S. Chapman, Studholm, N.B.  
 Etienne Chatelain, Curran, Ont.  
 H. Cholette, St. Polycarpe, Que.  
 R. Clendenning, Humbuston, Ont.  
 Alexis Coutu, Berthier (*en haut*), Que.  
 Hubert Couturier, Lefavre, Ont.  
 Paul Dimeau, St. Hyacinthe, Que.  
 J. B. Derocher, Curran, Ont.  
 J. Duval, St. Zotique, Que.  
 Daniel Field, Chatham, Ont.  
 J. B. Gauthier, Sorel, Que.  
 F. X. Gauthier, St. Charles, Que.  
 Alexis Gervais, Montreal, Que.  
 Augustin Gingras, St. Sauveur, Quebec, Que.  
 M. Girouard, Bouctouche, N.B.  
 François Goselin, North Stukeley, Ont.  
 Pierre Hamel, St. Flavien, Que.  
 Joseph Harvey, St. Alexis, Que.  
 Joseph Harris, Gore's Landing, Ont.  
 Tyrus Hawley, Enterprise, Ont.  
 J. P. Huyck, Belleville, Ont.  
 A. Jeannotte, Pointe aux Trembles, Que.  
 G. W. Johnson, Clarenceville, Que.  
 John Johnson, Oakleaf, Ont.  
 A. Joyal, St. François du Lac, Que.  
 E. Ketcheson, Belleville, Ont.  
 Col. A. Konkle, Beamsville, Ont.  
 Pierre Lacoste, St. Jean, Que.  
 Joseph Lacombe, Lavaltrie, Que.

Chs. Lefrance, Ste. Luce, Que.  
 Joseph Lalonde, St. Polycarpe, Que.  
 J. M. Landriau, Ripon, Que.  
 Hilaire Laguerre, Ste. Anne de la Pérade, Que.  
 W. Lattimer, Napanee, Ont.  
 François Laurin, Gatineau Point, Que.  
 Pierre Lavallé, Sorel, Que.  
 Olivier Lavoix, Baie St. Paul, Que.  
 Geoffrie Lefebvre, St. Rémi, Que.  
 Jacques Lefebvre, St. Rémi, Que.  
 François Legault, St. Timothée, Que.  
 John G. Lloyd, Gananoque, Ont.  
 J. W. Loucks, Morrisburg, Ont.  
 J. Marleau, St. Polycarpe, Que.  
 Frank Martin, Moulinette, Ont.  
 John Mingle, St. Ann's, Ont.  
 D. Mitchell, Baldwin, Ont.  
 H. McDonald, Malignant Cove, N.S.  
 W. H. McEwan, Moore, Ont.  
 D. Oiser, Codrington, Ont.  
 A. Ouellet, St. Augustin, Que.  
 J. Palmer, Dorchester, N.B.  
 Pierre Patenaude, Sherrington, Que.  
 A. Raiche, St. Camille, Que.  
 Marcus Redmond, West Winchester, Ont.  
 P. Renaud, Lavaltrie, Que.  
 J. Rich, Brownington, U.S.A.  
 Chas. Roy, Middleton, U.S.A.  
 P. Sakokenni, Caughnawaga, Que.  
 Ambrose Savoie, St. Barthélemi, Que.  
 Wm. Scriver, Lacolle, Que.  
 Robt. Sellars, Kingston, Ont.  
 Horace Sheldon, Portland, Ont.  
 David Sliter, Warburton, Ont.  
 D. Smith, Williamstown, Ont.  
 M. Sonorese, Caughnawaga, Que.  
 John Spruny, Brighton, Ont.  
 P. C. Terriault, St. Arsène, Que.  
 François Tesier, Ste. Anne de la Pérade, Que.  
 John Tillotson, Mountain View, Ont.  
 Henry Vanluven, Battersea, Ont.  
 John Vaughan, Easton's Corners, Ont.  
 John Waldorff, Moulinette, Ont.

LIST of the Veterans of the War of 1812, &c.—*Concluded.*

Jean Bilodeau, St. Henri, Que.	A. R. McDonald, Greenfield, Ont.
T. Bouliane, Roberval, Que.	Hill Shier, Sweet's Corners, Ont.
Joseph Côte, St. Ferdinand, Que.	Pierre Bray, St. Polycarpe, Que.
Louis Faucher, Axtell, U.S.A.	Chas. Camiré, Chester, West, Que.
W. B. Turner, Knoxford, N.B.	François Sevigny, St. Esprit, Que.
A. Bonamy, St. François Xavier, Man.	Denis Lefebvre, Montreal, Que.
Jacques Cadieu, Rigaud, Que.	J. McNaughton, Glen Robertson, Ont.
Joseph Ivon, East Saginaw, U.S.A.	Michel Lemaire, St. Brigide, Que.
John Landon, Fitzroy Harbor, Ont.	François Voisard, Louiseville, Que.

Ontario.....	42
Quebec.....	52
New Brunswick.....	4
Nova Scotia.....	1
Manitoba.....	1
United States.....	4
Total.....	<u>104</u>

C. EUG. PANET, *Col.*,*Deputy of the Minister of Mil. and Def.*

OTTAWA, 26th March, 1889.

# RETURN

(76.)

To an ADDRESS of the SENATE praying for a copy of the report made to the Minister of Public Works, by the Commissioners on the Floods in the St. Lawrence River.

By order.

HECTOR L. LANGEVIN,

*Acting for the Secretary of State.*

OTTAWA, 24th April, 1889.

OTTAWA, 20th April, 1889.

SIR,—I am directed to send you herewith in compliance with Order of the Senate, No. 4, 1889, copy of the report by the Commissioners on the floods in the St. Lawrence River, a synopsis of papers sent, and the communication received from your Department.

I have the honor to be, sir, your obedient servant,

G. F. BAILLAIRGE, *Deputy Minister.*

GRANT POWELL, Esq., Under Secretary of State, Ottawa.

## SYNOPSIS.

Date.		Ref. No.		Page.
1886.				
May 24	From Annual Report. ....	68134....	Reports of the Montreal Flood Commission	1
Aug. 20	From City Clerk, Montreal .....	70083....	About co-operation with the City of Montreal by other municipalities and companies interested concerning the construction of the proposed dyke or levee at Montreal .....	9
do 23	From Chief Engineer .....	70084....	Reports on co-operation sought from Federal Government by the City of Montreal towards the construction of the dyke..	9
do 25	To City Clerk, Montreal.....	70164....	Telegram.—So soon as members of the Privy Council have returned to town letter 70083 will be submitted to Council	9
do 25	From Special Committee on Inundations.....	70515....	Report of the Special Committee on Inundations appointed by the Council of the City of Montreal, on the 14th January, 1884.....	9
July 13	To City Council, Montreal.....	70675....	Answer to letter 70083.....	70
Oct. 5	From Secy. Municipal Council, Laprairie.....	71313....	Transmits a copy of a resolution of the Municipal Council of Laprairie in connection with periodical inundations of the village, &c., &c.....	70



SYNOPSIS.—*Concluded.*

Date.	—	Ref. No	—	Page.
1886.				
Nov. 8	From Harbor Commissioners Montreal.....	72307....	Offer to place four of their tugs at the disposal of the Department for experiment of ice breaking in and about the Harbor of Montreal .....	72
do 10	Order in Council.....	72454....	Granting a further advance of \$3,000 to be applied towards, "Examination in connection with spring floods at Montreal and vicinity" .....	72
do 16	From City Clerk, Montreal.....	72486....	Transmits extract from the minutes of a meeting of the Finance Committee with reference to the proposed experiment suggested by the Commissioners appointed to enquire into the causes of the floods at Montreal.....	73
do 25	From City Clerk, Montreal.....	72666....	Inundation Committee very anxious to know if Government will take immediate action to keep the river open and answer.....	73
do 25	From Mayor of Laprairie.....	72755....	Offering suggestions respecting proposed improvements at Laprairie, <i>re</i> inundations .....	74
1887.				
Mar. 10	From Montreal Flood Commission.....	75274....	Recommends immediate action to be taken to clear the ice and the experiment of using explosives to that end.....	75
do 16	From Chief Engineer.....	75275....	Reports on 75274. ....	75
April 7	Order in Council .....	76020....	Granting a further credit of \$3,000 towards the cost of an examination in connection with spring floods at Montreal and vicinity... ..	76
do 20	From Mayor of Laprairie.....	76343....	Calls attention to previous applications for harbor improvements at Laprairie, &c, and works of protection against inundations .....	76
do 30	From City Clerk, Montreal.....	76582....	Transmits extract from the minutes of a meeting of the Finance Committee.....	78
May 18	From Chief Engineer.....	77222....	Reports on 76343. ....	79
do 21	From City Clerk, Montreal.....	77379....	Transmitting a memorandum of facts or points in connection with the recent interview between the Minister of Public Works and delegates from the City of Montreal on the subject of inundations.	79
.....	From Accountant, Department of Public Works .....	77829....	Statement of Expenditure from 1st July, 1886, to 8th June, 1887.....	82

Reference No. 68,134.

# MONTREAL FLOOD COMMISSION.

## REPORTS OF THE COMMISSION

**APPOINTED** by Order in Council of 28th May, 1886, to "Enquire into the causes of the floods at Montreal, and to suggest the necessary remedies to prevent their recurrence"; together with Order in Council appointing the Commission, and Report of the Chief Engineer of the Department of Public Works.

**CERTIFIED COPY** of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 24th May, 1886.

On a Memorandum dated 22nd May, 1886, from the Minister of Public Works, representing that a number of communications have been received from the City Council, Board of Trade, Corn Exchange Association, &c., of the city of Montreal, asking that a Commission be appointed by the Government to enquire into and report upon the causes which lead to the floods which annually devastate the city of Montreal;

That the City Council has offered to pay one-half the expense of such a Commission on condition that it be allowed to nominate one of the Commissioners, and that Mr. Walter Shanly, C.E., has been suggested as the representative of the City Council on such Commission;

The Minister recommends that a Commission be appointed to enquire into the causes of the floods at Montreal, and to suggest the necessary remedies to prevent their recurrence, and that such Commission be composed of Messrs. H. F. Perley, C.E., Chief Engineer of the Department of Public Works, as representing the Department, T. C. Keefer, C.E., as representing the Board of Trade and Corn Exchange Association of Montreal, John Kennedy, C.E., as representing the Harbor Commissioners of Montreal, and Walter Shanly, C.E., as representing the City Council of Montreal—it being expressly understood that the latter gentleman is to be remunerated for his services wholly by the City Council, and that he is not to be paid in any way by the Government.

The Committee concur in the foregoing recommendation and submit the same for your Excellency's approval.

JOHN J. MCGEE, Clerk Privy Council.

Reference No. 68,134.

**CERTIFIED COPY** of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 28th May, 1886.

The Committee, on the recommendation of the Minister of Public Works, advise that the Order in Council of the 24th instant authorizing a Commission to investigate the causes of the annual floods at Montreal be rescinded, and that in lieu thereof Messrs. H. F. Perley, C.E., as representing the Department of Public Works, T. C.



Keefer, C. E., as representing the Board of Trade and Corn Association of Montreal, John Kennedy, C. E., as representing the Board of Harbor Commissioners of Montreal, and Percival W. St. George as representing the City Council of Montreal, be appointed a Commission to enquire into the causes of the floods at Montreal, and to suggest the necessary remedies to prevent their recurrence; it being understood that one-half of the expense of such Commission is to be paid by the city of Montreal.

Reference No. 69,816.

JOHN J. MCGEE, *Clerk Privy Council.*

MONTREAL FLOOD COMMISSION, MONTREAL, 31st July, 1886.

SIR,—The Commissioners appointed to “enquire into the causes and suggest remedies” for the ice floods at Montreal, immediately upon their organization last month, made arrangements for the land and river surveys and the investigations necessary in dealing with so great a question, and these are now being actively prosecuted.

The Commissioners, conscious of the great desire on the part of the citizens of Montreal that every possible effort should be made to prevent the recurrence of the disastrous floods of April last, took immediate steps to deal with the protection of the district south of the Lachine Canal, relative to which a charter was obtained at the last session of Parliament for the construction of a dyke or levee. They have prepared, and herewith submit, a plan showing the position of the site proposed for this dyke, together with an estimate of the probable cost.

The area which would be protected by this dyke is bounded by the Lachine Canal, the River St. Pierre, the tail-race of the Montreal waterworks and the River St. Lawrence, from the city limits, as far down as the waste weir at Tate's dry dock, and includes nearly the whole of the municipality of St. Gabriel, excepting the islands in the St. Lawrence.

The area protected within the limits of the city of Montreal is about 360 acres, and in St. Gabriel about 300 acres. The assessed value of this area is nearly \$5,000,000, of which about \$1,800,000 is in St. Gabriel.

The route of the dyke is along the present road and top of river bank, from Tate's dry dock to a point about 3,000 feet above the Victoria Bridge. Here it turns inland, crossing the city limits at the rear of the property belonging to the Estate Knox and strikes the tail race embankment near Wellington Street—otherwise known as the Lower Lachine Road—passing in rear of the farm house on the property of the Congregational Nuns.

The tail race bank is now being raised by the city to the level proposed for the top of this dyke, which is 29 feet above city datum or summer level of Montreal harbor. The level of top of dyke would be 1 foot 6 inches above highest level of floods of April last, and is nearly the same as the coping of Tate's dry dock, as also of the rails of the Grand Trunk Railway where crossed by the dyke.

The connection of the head of the tail race with the Lachine Canal bank completes the route of the dyke.

The estimated cost of the dyke and the necessary pumping plant and drainage works required in connection with it will be about \$85,000. The land is valued at about \$35,000, making a total of \$120,000. The land valued is much more than will be required for the site of the dyke, as it includes the whole of such building lots as are affected by the close proximity of the embankment, also a considerable acreage of low ground, which is not suitable for building purposes, from which it is proposed to take the material required for the embankment.

The estimate for the drainage and pumping works also includes sewers, which, though now only wanted in connection with a dyke, will ultimately be of value to the city as sewers.

The estimate, and the right of way provided for, are for a dyke alone, but the culverts are lengthened to admit of widening the dyke for a future roadway.

The final location, breadth, &c., may be modified by arrangements with the proprietors. These are few in number and the most important of them are quasi-public bodies.



The Commissioners think it probable that it may be decided to construct at once the levee, on account of its simplicity, certainty of effect, the small amount of damage or inconvenience to be caused by it, and its moderate cost in proportion to the large amount of property it would benefit, as well as because any alternative scheme involves delay and the risk of further possible damage.

The protection of the remainder of the exposed district of the city, north of the Lachine Canal by raising the river front, is a work of much greater magnitude, involving as it does the almost entire reconstruction of the revetment wall. In connection with the plans and estimates required to show the cost of this work, the Commissioners are now conducting surveys and investigations for the purpose of ascertaining the practicability and probable cost of diminishing the floods, and of reducing them within harmless limits, by means of river works.

We have the honor to be, sir, your obedient servants,

THOS. C. KEEFER,

HENRY F. PERLEY,

JOHN KENNEDY,

PERCIVAL W. ST. GEORGE,

*Commissioners.*

A. GOBEIL, Esq., Secretary Department of Public Works, Ottawa.

#### ESTIMATED COST OF PROPOSED POINT ST. CHARLES AND ST. GABRIEL DYKE.

Embankment, culverts, fencing, &c .....	\$ 37,400
Pumping and drainage works.....	41,600
	<hr/>
	\$ 79,000
Engineering and contingencies.....	6,000
	<hr/>
	\$ 85,000
Land valuation.....	35,000
	<hr/>
Total.....	<u>\$ 120,000</u>

Reference No. 77,053.

#### MONTREAL FLOOD COMMISSION, MONTREAL, 5th May, 1887.

SIR,—The Commissioners have the honor to report that they have completed the surveys and observations of the River St. Lawrence in connection with their investigation into the causes and suggestion of remedies for the floods at Montreal. These observations have extended from the ice packs below Morrisburg to Quebec, a distance of 250 miles; but the ice surveys have been confined to the portion of the river between the head of Lake St. Louis and the Platon, about 36 miles above Quebec—the lowest point at which an ice bridge was formed during the past winter.

The object of these surveys, the first of their kind which have been taken in connection with the ice question, was to ascertain the practicability of holding back above Montreal as well as of passing out to sea below Three Rivers a sufficient quantity of that ice which by its packing immediately below Montreal is the sole cause of the floods.

The field work in connection with these surveys, observations and ice charts was only completed last week, and on account of the many questions involved and the various projects supported by worthy persons, some time will be required to prepare our final report and to put on record the large amount of new and valuable information which has been obtained.

In view of the urgency of the question the Commissioners now beg leave to report the result of their investigations and the conclusions at which they have arrived, in order that prompt action may be taken to protect the city of Montreal before another winter.

In the first report, dated 31st July, 1886, the Commissioners presented plans and estimates for a dyke, or embankment, extending from Tate's dry dock at the head of Mill Street, along the river front to the St. Pierre River, at the lower Lachine Road, there to connect with the embankment of the water works tail race, and stated that they thought it probable "that it may be decided to construct at once this levee, on account of its simplicity, certainty of effect, the small amount of damage or inconvenience to be caused by it, and its moderate cost in proportion to the large amount of property to be benefited by it, as well as because any alternative scheme involves delay and the risk of further possible damage."

With respect to the protection of the exposed district north of the Lachine Canal by raising the river front, the Commissioners stated in that report that it was "a work of much greater magnitude, involving as it does almost the entire reconstruction of the revetment wall," and that in connection with this work they proposed to ascertain "the practicability and probable cost of diminishing the floods and of reducing them within harmless limits by means of river works."

The Commissioners have now to report, as the result of these investigations, their opinion, that, while an important diminution of the quantity of ice which is now arrested below Montreal may be effected by river works, or by annual work in the river, which may be the means of averting a flood in certain years—and more especially a winter flood,—in other years they might prove ineffectual for the protection of Montreal, especially against spring floods, and they are forced to the conclusion that there is no absolute certainty of protection for Montreal but in excluding the river by a dyke, or in raising the low districts above flood level.

#### EXCLUSION OF THE RIVER.

The questions connected with a dyke upon a permanent plan along the front, between the Canal and the Canadian Pacific revetment wall, are of such magnitude that, so long as there was hope of protection in any other direction, the permanent dyking of a portion of the city front must be regarded as a work of last resort.

The raising of Commissioners Street above flood level would be the most simple, permanent and effectual manner of dealing with the question, regardless of all other considerations. But this work calls for the simultaneous reconstruction of the revetment wall of a greater thickness and to a greater height, and upon its present site. Commissioners Street is too narrow for the present, and still more so for the early future requirements of the commerce of Montreal; nor can it at present be widened, because the wharfage width between it and the ships is equally insufficient, and the commerce of the port is of more importance to the city and the Dominion than the width of the street. Commissioners Street, therefore, cannot be widened, nor can its revetment wall be reconstructed where it ought to be for the purpose of a dyke until there is an advance of the whole wharfage front,—which carries with it an advance of the outer or eastern line of the dredged channel for its entire length. Again, the raising of Commissioners Street, to a height of at least six feet, means an unknown amount for property damages along the whole route, and extending inwards toward the city at every connecting street, so far as property would be affected by the rearrangement of street grades. But probably the most serious matter would be the interposition of a rampart, six feet in height, between the city and the port, over which all the tonnage must be carted. About ten years ago a commission of engineers recommended the widening of the wharves and of this street, and we understand that financial reasons alone have hitherto prevented any work being done in this direction; but, as Montreal will soon require all the harbor facilities which her position is capable of, there is very little doubt that this enlargement of the harbor front, and of Commissioners Street, will soon be undertaken, and until this is done it will be necessary to postpone the permanent dyke required as protection from floods.

Since the report of the engineers above referred to the question of the proper height of wharves, for the accommodation of the larger class of steamers, which the deepening of the river has brought to the port, has been raised. The present level of wharves was adopted when the shipping of the port was confined to vessels of a



few hundred tons. Ocean steamers of many thousand tons now frequent the port in such numbers as to need all the central portion of the harbor, and for these steamers the Commissioners understand a higher level of wharf would be more convenient. The higher the wharf level, the easier the cartage, and the less space occupied by ramps.

Montreal is the only city whose wharves are submerged continuously for five months in the year; and Captain Barclay, for many years in control of the loading and discharging of Allan's steamers, is of opinion that the level of Commissioners Street itself would be the most convenient one for the ships of that line. This, if applied throughout, would practically abolish the revetment wall, substituting the wharf front in its place.

The Commissioners refer to this question of wharfage height in consequence of its connection with that of a permanent dyke. The thickness and cost of a revetment wall depends upon its height, and as the permanent dyke must be either in connection with a new revetment wall or, in the absence of one, upon a foundation for the level of Commissioners Street, the condition precedent to its location and mode of construction is the settlement of these questions of the new line for the wharves and the height of the same.

The retention of the present level of the wharves with a new revetment wall so placed as to give a hundred feet width to Commissioners Street would, with the present system of wood construction, give the least amount of perishable work, and would cost about \$1,200,000.

To raise them to the level of Commissioners Street and provide a dyke against floods above that level would cost about \$1,700,000.

Should it be found advisable to raise the wharf level with its railway tracks and sheds above the winter level of the river—abolishing thereby the revetment wall and its ramps—all that will then be necessary for the protection from floods attaining a higher level will be a permanent dyke or rampart of substantial masonry placed at a safe distance from the wharf front. The safe distance has been established by more than forty years' experience, as that between the revetment wall and the buildings fronting upon it. Openings through this parapet wall for cartage purposes would be closed by stop-gates during the flood periods.

If the high or Commissioners Street level be adopted for the wharves along this portion of the city front, permanent sheds, bearing the same distance relation to the wharfage front, as the buildings on Commissioners Street now do to the revetment wall, would be resorted to, and the Commissioners think that the parapet wall could be utilized in the construction of such sheds.

It would also make possible an elevated railway, reaching the manufacturing districts at either end of the city without interrupting the traffic of the port.

The annual cost connected with the temporary sheds has been estimated as high as \$10,000. There is a further charge for removal of ice as well as the additional time and cost of cartage in favor of the high level wharf.

Whether these advantages will be considered sufficient to compensate for the half million dollars greater cost of the high level is in the future.

#### ELEVATION OF FLOODED DISTRICT.

The raising of the low districts above flood level involves an outlay upon twenty-six miles of streets in this district of upwards of one million of dollars, exclusive of the cost of raising the buildings and lots, and is, in any case, the work of years. For the purposes of flood prevention the raising of Commissioners Street alone would be sufficient, and nothing would be gained, except in a sanitary point of view, by raising any other street or buildings, because pumping must still be resorted to during floods, after the streets, lots and buildings have been raised, if the cellars are to be kept dry. It cannot be supposed that this whole district would be raised another six feet for the benefit of the cellars.

We have already referred to the questions connected with the raising of Commissioners Street, and would only add, upon the question of cost, that nothing is to



be gained in that respect by the raising of the street itself. Its necessary revetment wall would afford the required protection from floods, whether the street were raised or not, and this revetment wall is a necessary adjunct to the raising or maintenance of the street.

As there is, therefore, no means of protecting the river front north of the Lachine Canal upon any permanent plan, in time to provide against the contingency of another flood, the Commissioners have decided to advise the erection of a temporary dyke upon the top of the revetment wall, to be constructed of timber and earth-work, with openings through the same for access to the wharves, which are to be closed when navigation ceases. This can be effected in a short time and at a cost under \$50,000, which includes supporting the revetment wall where required, seeking for and cutting off old drains or leaks connecting with the river, so that the minimum of pumping would be secured.

#### ESTIMATES.

The present pumping plant was hastily improvised, and cannot be relied upon. It is moreover insufficient in capacity for the work it may be called upon to do during a flood, as there has as yet been no experience in pumping with the river at a higher level than the revetment wall.

For permanent plant about \$46,000 will be required, and this estimate is based upon the carrying out of the intercepting sewer, which we understand has already been determined upon by the city.

Since our estimate (of July, 1886) for the Point St. Charles dyke some expenditure of a permanent character has been made there for the drainage works, reducing by so much our provision under that head.

The cost of protection work will now be as under:—

Embankment, culverts, fencing, &c., Point St. Charles	\$37,400 00
Drainage works.....	14,000 00
Land valuation .....	35,000 00
Temporary dyke revetment wall, say.....	40,000 00
Superintendence, contingencies, &c.....	6,000 00
	<hr/>
	\$132,400 00
To which should be added for permanent pumping plant .....	46,000 00
	<hr/>
	\$178,400 00

We have the honor to be, sir, your obedient servants,

THOS. C. KEEFER.

HENRY F. PERLEY.

JOHN KENNEDY.

PERCIVAL W. ST. GEORGE.

A. GOBEL, Esq., Secretary Department of Public Works.

Reference No. 79,824.

MONTREAL FLOOD COMMISSION, MONTREAL, 12th August, 1887.

SIR,—In obedience to your verbal request, made to one of their members, the Chief Engineer of Public Works, the Commissioners have the honor to report that they have prepared plans and estimates for a line of piers and booms at the lower end of Lake St. Louis.

In their report of the 5th May last, the Commissioners stated their belief that an important diminution of the quantity of ice which is now arrested below Montreal may be effected by river works, or by annual work in the river, that is—by holding back the ice above Lachine—or by passing it out to sea below Three Rivers.

Of these two methods one would be represented by works of construction in the river, requiring only the annual labor of opening and closing the booms, while the other, to be effective would require a capital outlay for properly constructed ice-breaking steamers, and considerable annual expenditure in fuel, wages and repairs. The action of the piers and booms would be independent of the character of the winters, while the cost, and even the practicability of the alternate method would materially depend upon the weather, and it was in view of this that the Commissioners recommended an experiment to be made last autumn with the tug boats of the Montreal Harbor Commission.

The practicability of arresting floating ice when young, and of causing ice to form at points where the current is sufficient to prevent freezing, by means of booms has been established upon the Ottawa River and its tributaries, notably at Deux Rivières, which point we have surveyed in order to compare the currents and conditions there with those in Lake St. Louis, below Ile Dorval; and we have come to the conclusion that the ice can be arrested at the points proposed by means of piers and booms, without the risk of any alteration in the winter levels of Lake St. Louis.

In the case of Montreal, the Commissioners, while holding the opinion that the stoppage of the ice in early winter below Dorval would reduce the floods, and even render them harmless in certain winters, felt that when the interests at stake were so great and a certain remedy was within the reach of those interested, it would have been unwise to assume any risks; but as regards the south shore of the St. Lawrence, below the Lachine Rapids, the conditions are reversed, and the only relief which can be expected for that quarter is in the holding back of the ice above Lachine.

The plan of holding back the ice has been publicly advocated from an early date. By whom it was first suggested is unknown to us, but we find it urged in the columns of the *Montreal Herald* in 1841; and in the report upon the Victoria Bridge by the Chairman of this Commission, in 1853, the opinion was expressed that "a line of piers across this lake, near Ile Dorval, would very much diminish the annual inundation at Montreal.

Since 1852—the year when the record of winter gauging at Montreal commenced—the river has closed ten times in the month of December, and always without a winter flood. In the other twenty-six years it has closed in January. The effect of severe continued frost, at the beginning of winter, is to close Lake St. Louis, and cut off further supply of ice from above the points where it freezes over, and thus prevent a winter flood, which is the most distressing one.

Again, if the ice were held in Lake St. Louis until the river is open below Montreal, the severity of the spring floods should be diminished. Until last April it was the descent of the lake ice, before the river was open below Montreal, that caused the spring floods; but the shove and flood took place last spring before the lake ice passed below Victoria Bridge. The river below Montreal was so filled with ice, which came down from the city before the Laprairie Basin and Lake St. Louis were closed for the winter, as well as by the ice formed in the open water below this lake throughout an exceedingly severe winter, that it did not need the addition of the lake ice, in the spring, to cause a flood.

The effect of a line of piers and booms below Ile Dorval will be to prevent the descent of any ice from above them, until the booms are opened in the spring; and also to cover with ice a large portion of Lake St. Louis, extending to a considerable distance above Dorval, which is now an open water factory of frasil and borage ice, which by the action of frost and wind is sent over the Lachine Rapids throughout the winter. The greater part of this ice is carried under the surface through the Laprairie Basin and is packed somewhere between Montreal and Varennes.

The number of piers, each of which will be thirty feet square on foundation, will be nineteen; and the length of two ply boom will be about fifteen thousand feet, or nearly three miles. The cost of the whole we estimate at \$70,000. The Commissioners recommend the carrying out of this work as one which, in proportion to its



cost, will in their judgment produce greater beneficial results to the exposed districts outside of Montreal than any other river work they are able to suggest.

We have the honor to be, sir, your obedient servants,  
THOS. C. KEEFER,  
HENRY F. PERLEY,  
JOHN KENNEDY,  
PERCIVAL W. ST. GEORGE.

Hon. Sir H. L. LANGEVIN, K. C. M. G., &c., Minister of Public Works.  
Reference No. 80,648.

CHIEF ENGINEER'S OFFICE, OTTAWA, 8th September, 1887.

SIR,—As per the endorsement by the Hon. the Minister, on Fyle No. 79,824, I am to state the particulars of the works proposed by the "Flood Commission" to be built in Lake St. Louis, for preventing wholly or in part, the passage of ice formed in the early part of each winter in the lake, or brought down into it from Lake St. Francis—down the Lachine Rapids, through the Laprairie Basin, and past Montreal, to jam and accumulate, and thus add to the probability of recurring floods and inundations, not only in that city, but over the southern shore of the St. Lawrence below the Lachine Rapids.

The Commission has stated fully why they have recommended the construction of piers and booms in Lake St. Louis, and it only remains for me to say that the piers will be 19 in number, each 30 feet square, built with sloping faces on the up stream ends, and properly protected to withstand the run of ice in the spring. These piers are to be placed at the lower end of the lake, and in such positions as will not interfere with navigation, and where a line of shoal water extends from shore to shore, they are to be placed about 500 feet apart, and between them booms will be stretched after the close of navigation, which, from the experience gained on the Upper Ottawa will have the effect of causing the ice to form completely across the lake early in the winter, and once taken the pressure on the booms will be reduced, and all ice formed in the lake or brought into it, must remain until the breaking up in the spring. At present the ice forms out from the shores (bordage), and is broken up by winds and storms and carried by the current to the foot of the lake, thence through the Lachine Rapids, &c., to and past Montreal, and this process or action continues until the bordage on either side has become connected and a solid unbroken sheet has been formed.

Just before the breaking up of the river in the spring, one end of each boom will be cast loose, and with the flow of the ice they will swing freely and without damage, and can so remain until required to be placed in position for the following winter.

I have examined the details of the estimate of cost prepared by the Commission, and believe that it will be barely sufficient to cover the cost of the works proposed, as I differ in some points respecting the mode of constructing the piers, for with my experience in connection with the piers built by the Department at Laprairie, Chenail du Moine and Berthier, I am of the opinion that a heavier plan of construction must be adopted. The plan of boom prepared and the fastenings and mode of attachment to the piers are satisfactory.

If these piers and booms are to be of any service next spring, their immediate construction is very desirable, and if they are to be proceeded with and to hasten their speedy completion, the work of construction might be let in several, say five or more, contracts.

If the foundations can be put in before the ice makes and the booms stretched, and I see not reason to prevent this being done, the superstructures can be completed after the ice has formed, when there will be ample opportunity for the conveyance of materials—notably ballast to each pier.

I am, sir, your obedient servant,

HENRY F. PERLEY, *Chief Engineer.*

A. GOBEL, Esq., Secretary Public Works Department.  
Reference No. 70,053.



CITY CLERK'S OFFICE, CITY HALL, MONTREAL, 20th August, 1886.

SIR,—You are no doubt aware that the Commissioners appointed by the Federal Government to enquire into the cause and suggest remedies for the ice floods in Montreal have submitted a preliminary report recommending the immediate construction of the proposed dyke or levee along the river bank west of Tate's Dry Dock, at an estimated cost of \$120,000.

At the meeting of Council held last Wednesday, that report was referred to a special committee composed of Aldermen Grenier, Laurent, Donovan, Stevenson, Mooney, Rolland and Hamolin.

At a meeting of that committee held this day, it was resolved—That whereas the proposed improvement is one in which the Federal Government, the municipalities of St. Gabriel and Verdun, the Grand Trunk and Canadian Pacific Railway Companies as well as the city of Montreal are interested, the City Clerk be instructed to write to these several parties to inquire to what extent they will be disposed to co-operate with the corporation of the city of Montreal in meeting the cost of carrying out the projected works. The present letter is therefore addressed to you with a request that you will favor the committee with your answer in time for their next meeting which will take place at three o'clock p.m. next Wednesday.

I have the honor to be, sir, your obedient servant,

CHAS. GLACKMEYER, *City Clerk.*

Sir HECTOR LANGEVIN, Minister of Public Works, Ottawa.

Reference No. 70,084.

CHIEF ENGINEER'S OFFICE, DEPARTMENT OF PUBLIC WORKS, CANADA,  
OTTAWA, 23rd August, 1886.

SIR,—The city clerk of Montreal asks to what extent the Federal Government would be disposed to co-operate with the corporation of the city of Montreal in meeting the cost of carrying out the works proposed by the commissioners appointed by the Federal Government to enquire into the causes and suggest remedies for the flooding of Montreal, for the protection of the Point St. Charles district—so-called.

With reference to this request I beg leave to state that in my opinion the work in question does not possess any federal characteristic, but is one in which the city of Montreal is chiefly interested, and the property to be protected is not owned or controlled by the Federal Government, nor is the flooding of this property, which the works proposed is to prevent, due in any way to causes within the control of the Federal Government.

I am, sir, your obedient servant,

HENRY F. PERLEY, *Chief Engineer.*

A. GOBEL, Esq., Secretary Public Works Department.

Reference No. 70,164.

MEMO.—Telegraph Mr. Chas. Glackmeyer that so soon as the members of the Privy Council have returned to town his letter will be submitted to the Council.

H. L. L.

Then lay before me again.

H. L. L.

Reference No. 70,515.

REPORT OF THE SPECIAL COMMITTEE ON INUNDATIONS APPOINTED  
BY THE COUNCIL OF THE CITY OF MONTREAL, ON THE 14TH  
JANUARY, 1884.

EXTRACT FROM THE MINUTES OF A MEETING OF THE COUNCIL, HELD ON THE 14TH  
JANUARY, 1884.

On motion of Alderman Stevenson, seconded by Alderman McShane.

Resolved, That a special committee composed of three members of the council be named to make investigations into the cause of the recent inundation and former

inundations of certain portions of the city, and that they be authorized to associate with them one member of the Board of Trade, and one member of the Corn Exchange, with instructions to report to council, as early as possible, what proceedings may be necessary in order to prevent similar inundations in the future, and that said special committee be composed of Alderman Stevenson, Laurent and McShane.

Certified:

CHAS. GLACKMEYER, *City Clerk.*

The same Committee was reappointed on the 10th March, 1884, and on 16th March, 1885.

*Members of Committee.*

Alderman Stevenson, Chairman.

Alderman Laurent, D. A. P. Watt, Esq.,  
do McShane, Robert P. McLea, Esq.

REPORT OF THE INUNDATION COMMITTEE RECOMMENDING A SURVEY FROM VICTORIA BRIDGE TO BOUCHERVILLE.

*To the Mayor and Aldermen of the City of Montreal:*

The special committee appointed to consider the question of the periodical inundation of the city of Montreal respectfully report:

That shortly after their appointment a number of meetings were held, and a large amount of valuable information secured, by the examination of witnesses, some of whom appeared at the request of the committee and others volunteered statements on the subject.

The committee made it generally known that they were desirous of collecting together any facts bearing upon the subject, and in order to ascertain whether any observations had been made by the adjoining municipalities, they addressed communications to the municipal authorities of Hochelaga, Longue Pointe, Boucherville, Varennes, Longueuil, St. Lambert, Laprairie, Verdun and other places in the vicinity. The information obtained from the last mentioned sources was very meagre, as no continuous system of observations appear to have been in any case attempted, and generally it may be said that the want of reliable data on this important subject is somewhat remarkable. As might be expected, wide differences of opinion were elicited as to the causes of, and the remedies for, the flooding of the city of Montreal, it being generally conceded that the conditions producing these inundations vary from year to year.

On two points, however, all agree, that the removal of obstructions now existing between the Victoria Bridge and the Boucherville islands, on both sides of St. Helen's Island, and the general widening and straightening of the deep water channel of the river, are both calculated largely to diminish the liability to inundation, as well as to mitigate its extent, under all circumstances.

As a result of their present enquiry your committee have therefore no difficulty in reaching a recommendation, to the effect that a careful survey of the bed of the river between the points mentioned, be at once instituted, and they suggest the obvious advantage which would be derived by securing the co-operation of the Harbor Commissioners, who already possess the best existing data and have also the requisite staff and appliances for immediate work. Their chief engineer, Mr. Kennedy, estimated that such a survey could be made for a very moderate sum and completed in a few weeks.

Your committee therefore recommend to the council the granting of an appropriation of say \$510, for this purpose, that being the amount which Mr. Kennedy estimates it would cost.

The evidence adduced before this committee, comprising statements made by Messrs. John Kennedy, harbor engineer, J. M. Nelson, his assistant, Geo. H. Henshaw, C. E., L. Lesage, Supt. M. W. W., P. W. St. George, city surveyor, Alfred



Brittain, assistant city surveyor, Captain Chas. Leger, pilot, Alderman Mount, Messrs. T. B. de Grosbois, James Shearer, Joel C. Baker, John Galbraith, J. G. Dining and C. G. Jones, is submitted herewith, and which, in the opinion of your committee, ought to be printed for future reference.

As this question is of paramount importance to the city of Montreal, your committee suggests the desirability of either continuing the present special committee, to superintend the survey above referred to, or to have this done under such other superintendence as the council may see fit to determine.

The whole nevertheless respectfully submitted.

A. A. STEVENSON, *Chairman.*

M. LAURENT,

J. McSHANE, jun., } *Representing the City Council.*

T. CRAMP, *Representing the Board of Trade.*

DAVID A. P. WATT, *Representing the Corn Exchange.*

COMMITTEE ROOM, CITY HALL, MONTREAL, 10th July, 1884.

Finance Committee's report concurring respectfully report that, as directed by the council, they have considered the accompanying report of the special committee on inundations for an appropriation of \$500 for a survey of the bed of the St. Lawrence, between the Victoria Bridge and the Boucherville Islands, and that they concur in the recommendation therein made.

The whole nevertheless respectfully submitted.

J. GRENIER.

J. FAIRBURN.

M. LAURENT.

J. H. MOONEY.

COMMITTEE ROOM, CITY HALL, MONTREAL, 11th September, 1884.

## THE EVIDENCE.

EVIDENCE OF MR. C. G. JONES, REAL ESTATE AGENT.

*Build another Bridge.—Montreal Inundation.*

MR. CHAIRMAN,—I had intended giving my views through the press, but will avail myself of the opportunity which this meeting presents.

We are all agreed that the flooding is caused by ice dams. Now, can we in any way affect the ice so as to prevent it damming up? I think we can. I may say I agree in the main with the opinions of those gentlemen contained in the *Witness*, which appeared in the first article on this subject, but think too much stress was laid upon the frasil as being such a factor in causing the dams. My experience of running water has led me to the conclusion that it requires something solidier than frasil to block a mighty stream like the St. Lawrence. I believe it is the solid masses of ice alone we have to deal with, and not with the frasil. I can understand after the dam is formed how the smaller pieces help to complete the work, but the small pieces would never form a dam, and if the larger pieces could be chopped up fine, there would be no damming and consequently no flooding. You may ask how all this chopping is to be done. I will tell you how, by building another bridge. I think it generally admitted that since the construction of the Victoria Bridge the ice floods have been few and far between.

Now if one bridge will have such effect what would not a second one have? In my opinion it would chop the ice so fine that it would be impotent to create any dam. I am further strengthened in this opinion from what came under my observ-



ation and knowledge during the last high spring floods some ten years ago. The ice here—at Longueuil—was solid. The weather having been cold, it showed no signs of breaking up, but a different state of things prevailed up west and south; they had had warm thawy weather, causing sudden freshets and the breaking up of the rivers flowing into the St. Lawrence. Consequently the ice came down in solid masses, and finding the ice here unyielding, went underneath, doubtless grounded, and caused the flood. (While looking at the flood, a man from Beauharnois told me the ice had all come down from the rivers and lakes above the night before.) Now had there been another bridge, the ice coming in contact with this second set of abutments would have been broken up into such small pieces, that though being drawn underneath the solid ice, could not have caused a dam, and Montreal on that occasion would certainly have escaped a most disastrous flood.

This bridge should be located just below the Victoria, where it would in no way interfere with navigation. The other advantages to be derived apart from this, both to the city and country from a second bridge, are too well known to dwell upon at this time. I have already pointed them out in the press. Any money expended in this way would not be thrown away, but would bring in a good return from railway, carriage and passenger traffic. I would therefore suggest that, before money is expended in experimenting, another bridge be first built. I would not say that this would be a perfect remedy for the evil we are discussing, but it would greatly ameliorate it by lessening the frequency of the floodings.

C. G. JONES.

MONTREAL, 1st April, 1884.

#### EVIDENCE OF MR. JOHN G. DINNING.

##### *Remove Moffat's Island, Isle Ronde and the St. Helen's Island Shoals.*

1. The current rushes towards it at the rate of twenty miles an hour carrying the ice against it. Driven therefrom, it is forced out into the channel, carried to the Ronde and jams there. Moffat's Island removed and the space deepened, say to six feet, the ice would be carried against the upper end of St Helen's Island and the north side of the river behind the Island, thus disposing of the greater portion of the lake ice when it arrives.

2. Remove the shoals which exist from the upper to the lower part of St. Helen's Island, deepening the space to at least ten feet, thus leaving a wider channel for the ice to pass down.

3. Remove Ile Ronde entirely, deepening the space to the extent of eighteen feet, continuing the same throughout the length of the bay of Longueuil, thus providing a channel deep enough and broad enough for the free passage of the ice, thus freeing the city from inundation.

4. Should a jam occur at the Boucherville Islands, remove the small island on the south side of the river, and deepen the space to eighteen feet.

Had Montreal been inhabited by Americans, St. Helen's Island would have been removed fifty years ago had it caused the flooding of the city. A disgraceful apathy has always existed in Lower Canada, while Ontario goes on leaving us a century behind.

The remedies proposed could by proper management, be effected by the employment of the many able-bodied men who are too lazy to work. These are to be found in hundreds in the Gaol and House of Industry.

The sand and stone removed from the river could be disposed of for building purposes, and for repairing the roads. The roads in Spain are repaired by convicts guarded by soldiers.

JOHN G. DINNING.

MONTREAL, 29th March, 1884.

NOTE.—The above is a synopsis of the nine letters published in *The Star*.

JOHN G. DINNING.

## EVIDENCE OF MR. JOHN GALBRAITH.

*Erect Piers and Booms above Lachine Rapids.*

Mr. John Galbraith said most of those who had already given their evidence before the committee, or through the press, had justly attributed the flood to a great extent to the formation of anchor ice, which is produced in great abundance in the rapids and open water above, choking up the more shallow parts of the river while the river is still low, and driving the main body of the water into the deeper channel, causing a shifting of the surface ice, that has by this time formed by the same severe cold that produced the anchor ice, and thus producing a new and greater difficulty, such as has existed all the past winter below our city.

Mr. Hodges, Contractor's Engineer for the building of the Victoria Bridge, published a book in 1861, being a description of his great work, and takes occasion to make the same remarks regarding the Montreal floods, and no man had a more lively appreciation of the difficulty, its course and extent. Such then being the cause of our floods, they ought to prevent the production of anchor ice.

He said there was a great deal of misapprehension concerning anchor ice and how it is formed. He had seen a letter in the *Gazette* throwing ridicule upon the statement that there could be anchor ice.

In answer to a question about the widening and deepening of the channel below the city as a preventive, Mr. Galbraith expressed the belief that every effort in that direction would be of service, but the difficulty of getting a sufficient fall of water below the city would render these efforts comparatively valueless.

The person who wrote that article in the *Gazette* could not have been long a resident of this country or he would have known better.

Anchor ice is formed mostly in the Lachine rapids and in the waters above them where the water was open, and appeared more like cart loads of sludge than solid ice. He had seen large cakes of ice rise from the bottom of the water. It only formed when the temperature was about 10 or 15 degrees below zero, and where there was a rocky bottom; it would not form on wood or mud.

Anchor ice and frasil were entirely different; anchor ice formed at the bottom and frasil in the body of the water. Frasil is anchor ice, or, rather, ice in its inception form, but having failed to attach itself to a conductor by the rapidity of the water motion; snow falling into the water and being congealed under different conditions, then ice will sink in the water and add to the frasil floating there and help to produce the obstruction complained of. He attributed the formation of anchor ice to the water on the top becoming cold and falling to the bottom, where, if it met with some good conductor which would carry off its latent heat, it froze solid and only reappeared at the return of mild weather when it was liberated and came to the surface. The reason why there was so much anchor ice in the St. Lawrence he believed to be on account of the vast extent of open water in and for ten miles above the Lachine rapids affording sufficient time to effect a process of equalization of temperature down to the freezing point before reaching the cover below the rapids and thus becoming fastened to the rocky bottom, being helped much by the agitation of the rapids in becoming still more firmly rooted thereby.

If they could devise some means to provide a covering for the water and so prevent the heat from radiating, the anchor ice would not form. This, he thought, might be done by building an arc of piers, with booms thrown across in winter to facilitate the process of taking. The water would at once begin to freeze in winter at the sides and gradually extend back until the whole of the open water would be frozen over. The dam at Carillon had had this effect. The piers, he thought, should be built across the river about a mile above the first break of the Lachine rapids, care being taken to have them sufficiently close together to effect the closing of that part of the river, the piers thus forming the necessary shoulder to the ice-cover. For purposes of navigation, the centre space in mid-channel could be made wide enough for steamers to get through with safety. The barrier thus formed would keep the



upper ice sufficiently long in the spring of the year to give time for the ice in front of the city to undergo considerable liquefaction and less capable of resisting the upper ice when it should come down; and, in this way, would save us from the spring flood also. Lachine would suffer no inconvenience by it, but, on the contrary, would be greatly benefited by the ice bridge so formed.

Mr. Galbraith said also that the water issuing from under this proposed cover would retain a large portion of its natural heat and would reach the cover below the rapids without having parted with it to that degree necessary to produce anchor ice, except in extremely cold weather, say 35 degrees below zero.

Mr. Baker said he agreed with Mr. Galbraith that where there is a covering to prevent radiation, nothing will freeze underneath. Thus, anchor ice would not form under surface ice. The St. Lawrence was one of the greatest factories of anchor ice in the world owing to the open water at the Lachine Rapids and Lake St. Louis.

Mr. Galbraith continued to say, that if the water below and above our city were less rapid and turbulent, so that a higher degree of temperature would suffice in effecting its close, the difficulty would not be so great. The most difficult thing was to start the formation of the ice for the covering, and this was the benefit of the boom. It would also serve to retain the upper ice until that below the city had a chance to break up.

JOHN GALBRAITH.

EVIDENCE OF MR. JOEL C. BAKER.

*The Principal Obstruction at Boucherville.*

Mr. J. C. Baker said that when a young man he was in the habit of going at Christmas and Easter by way of the river to his house in the county of Missisquoi, and therefore had frequent opportunities of watching the state of the river at these times and the changes it underwent. What caused the dam was the frozen ice and frasil that came down and caused an obstruction and made a very perfect dam.

These obstructions do not occur generally in deep water but in shallow places; and they tend to scoop out a deep channel. The ice for a great many years has shoved down about as far as Boucherville, and by a chart the places where the obstructions took place could be very easily seen. The important feature was that we have a deep channel, and if we could have it wide as well as deep, it would serve to carry off the ice and frasil. The remedy, therefore, seemed to him to be the improvements to the ship channel, all of which he considered served to create a waterway for the ice. The ice shoves before the erection of the Victoria Bridge were much greater and more frequent. The only feasible remedy seemed to him to be to give all the room possible to allow this floating ice to get out of the way. The Lachine Rapids were one of the biggest manufactories of frasil in the world. This frasil must be carried down and cannot in any way be checked without checking the water at the same time. He had been convinced for many years that all the improvements undertaken by the Harbor Commissioners to the ship channel were in the direct interest of the city, as tending to remove the difficulty. Wherever they could widen, deepen and straighten the channel they would be doing much towards remedying the great difficulty.

Mr. Thomas Cramp asked if the main obstruction generally took place near the same spot?

Yes; generally about the Boucherville Islands, but I have noticed obstructions at other places, especially about Moffatt's Island and at other places above the harbor. But the great difficulty has been below the harbor, and the other obstructions were only secondary.

Mr. Cramp:—Then the obstruction at Boucherville Islands is the real point?

That is my opinion. You have got to go there to get to the root of the evil, and by this way only will the difficulty be remedied.

Mr. Cramp:—Have you paid any attention to the matter this year?

Well, I have been over a considerable portion of the ground this year.



*Mr. Cramp* :—Is the phenomenon about the same this year as in past years? There can be no doubt that it is.

*Mr. Cramp* :—You then attribute the immunity we have enjoyed for many years from floods to the improvements to the ship channel?

Yes, I certainly do, and think that these can be the only remedy for the difficulty in the future.

*The Chairman* :—Does the frasil form every year or only in certain years?

It forms every year more or less.

*Mr. Cramp* :—The most serious enemy is therefore the frasil?

*Mr. Baker* :—Yes, I think so.

*Mr. Cramp* :—Do you think that if by any artificial means the ice could be detained in its course a passage could be obtained for the frasil?

The ice itself would not make a close dam, but the frasil is also carried in by the water and makes a perfectly impervious dam. The frasil without broken ice would, I think be carried down, as it has not substance enough to remain and form a dam.

*Mr. Cramp* :—How long have you been paying attention to this subject?

I commenced my observations first in 1849. My observations have been of a personal nature. I have written several letters to the public on the subject, and my opinion on the matter of floating ice and frasil are entirely my own, derived from personal observation. I have copies of the letters in question, and am willing to submit them to your committee for consideration.

J. C. BAKER.

#### EVIDENCE OF MR. JAMES SHEARER.

*Clear the Channel south of St. Helen's Island of all obstructions.*

Mr. James Shearer thought the surface ice had more to do with the flood than the frasil. The late flood was a more peculiar one. We had a very cold fall with no snow for a time, and the ice, of course, formed very thick, for it was a well known fact that the formation of ice was much slower when the snow lay thick on the ground. Then came a strong south-west wind which lasted for several days and broke up the surface ice, sending down the solid green blocks, which blocked up the south channel completely and the north one partially.

Then a jam formed at Boucherville of these blocks, the frasil filling up the interstices. But the jam was not here altogether, for while the water rose twenty-one feet four inches at the foot of the canal, it only rose twelve feet at Longueuil. If the jam was wholly at Boucherville, Longueuil should be submerged to the depth of about eight feet.

The cause of this was the south channel being completely blocked with ice and the whole of the water having to pass by the north channel. The south channel was full of islands and boulders, and the ice being obstructed thereby, piled up on it to the height of fifteen feet, in blocks of one foot in thickness. He considered the only cure was to clear out the south channel of all obstructions, and when the river rose as it did this spring, the water would have a channel 2,800 feet in width and six feet in depth to pass through. They should not deepen the channel, as that would lower the water opposite the city.

This plan would not affect the navigation, as in summer the south channel would be as shallow as ever. The wharf at St. Lambert should be done away with, as it lay directly in the current. The long wharf should also be removed for a similar reason, but they should not touch Ile Ronde, otherwise they would lower the water in the harbor.

The ship channel should be widened and deepened, the debris taken out being placed at the sides of the river so as to keep up the level. There was deep water round the back of St. Helen's Island with only one shoal of about 2,000 feet in length, and if this was removed they would have a steamboat channel there. The jurisdiction of the Harbor Commissioners only extended to the middle of the river so that they have never interfered beyond it.

JAMES SHEARER.

## EVIDENCE OF MR. T. B. DE GROSGOIS.

*Clear the course from Longueuil to Boucherville.*

CHARLES GLACKMEYER, Esq., City Clerk of Montreal :

SIR,—The Mayor of Boucherville having requested me to answer your letter, asking information on the subject of the inundations, I take the liberty to make known to you my observations concerning the inundations. Having always lived on L'Île St. Joseph, at Boucherville, it has been easy for me to observe the inundations.

*Inundation years at Boucherville.*

The first took place in January, 1860, the second in April, 1862, the third in 1865, the fourth in 1868, the fifth in 1870, the sixth in 1872.

Since that year we have had no great inundation; the water rose occasionally, but no jam seems to have formed, and the water caused little damage.

The greatest inundation took place from the 23rd to the 25th of April, 1862, and the water rose at least 20 inches higher than at any previous time.

In the month of December, 1883, and in January of that winter, the water rose a little, but a jam having formed near Longue Point, the water subsided here, and when the water was very high at Montreal, it was relatively low here.

*Cause of Inundations at Boucherville.*

The inundations at Boucherville are caused by the piling up of ice on the lower portion of the Island of Varennes, and the *battures* of the Pointe aux Trembles. This is demonstrated by the strength of the current which there throws itself into that part of the river to the south of the Islands of Boucherville, and which I will call the Boucherville River. On the 23rd of April, 1862, the water rushed on with such a force towards the Boucherville River that canoes could hardly be used; the same thing happened in 1872. The *batture* situated on the Boucherville River, on the lower portion of the Île St. Joseph, caused a small jam in 1870, and a commencement of the same last autumn.

*Cause of Inundations at Montreal.*

The inundations at Montreal are caused by the piling up of the ice in the *battures* of Longue Pointe and the Islands of Longueuil. I will remark that the parish of Boucherville ends at the Moisson channel, and that the islands situated higher up than the channel are in Longueuil parish.

The river forms at this place a cul-de-sac, which has no outlet but the ship channel near Longue Pointe. It was not enough, it appears, that this vicious conformation of the river caused damage to Montreal, the Harbor Commissioners had the earth removed by the dredge dumped all along the Longueuil Islands, so as to form a *batture* and almost block the Boucherville River at its mouth. All the rubbish from the holds of vessels coming into port and the sweepings of the port were thrown into the same place last summer, poisoning the Boucherville River. Several complaints were made and with very little results.

Another fact to show how little care was taken against obstructing the river. During the summer of 1882, the Government had the channel deepened between Boucherville and Longue Pointe. The earth was thrown on each side of the channel. I do not know if it was thus thrown throughout the whole length of the cut, but in several places it is exposed at low water. Imagine a shoal about thirteen arpents long almost across the width of the river. Last summer the ferry boat got aground during a storm; it had just been got afloat when it again struck on the *battes* formed by the dredges.

When we examine this year's jam, we see that it is very close to this bar.

The dredges which excavated the channel in the *battures* of Pointe aux Trembles and at the head of the Ste. Thérèse, also threw the earth into the river in places dangerous for the ice; it was even thrown into a pretty deep channel opposite the



north side of the Ile à Cardinal or Ile à Dufaulx. This earth should always be thrown at the end of an island, and never at the side.

The slope of the river between the *battures* of Longue Pointe and those of Pointe aux Trembles being inconsiderable, I am persuaded that a jam formed on the *battures* of Pointe aux Trembles and the lower portion of the Islands of Varennes would cause an inundation in Montreal if the Boucherville River was obstructed as it is this year. But when there is no jam in this river the water escapes that way, and this is what explains how it is that there has not always been an inundation in Montreal when there was one here.

#### *This Year's Jam.*

The jam which exists to-day was caused by a shoving of the ice, composed largely of snow ice. It took place on the 27th of December in the night. The ice descended St. Mary's current and piled up on the *batture* of Longue Pointe and the Islands of Longueuil.

The Boucherville River was blockaded between the Longueuil Islands, and was free from ice until the lower portions of Ile St. Joseph. This blockade was not a jam; it occurs at this spot nearly every autumn. The people here called it *la barrure*. It consists of a bank of ice too great for the entrance of the river and which remains there; it is only a few inches thick. During the shove, a portion of this block came down the Boucherville River, and stopped at the foot of the village, forming on its passage enormous jams. At present the Boucherville River is half blocked by jams. The other portion of the block stopped at the small Islands of Longueuil and on the *batture* formed by the Harbor Commissioners, making a jam which extends from the property of Mr. Damase Charron, on the Island, till near the property of Mr. J. M. Browning, on the Longueuil shore.

A portion only of the entrance to the Boucherville River is free from ice. The snow now hides a part of it, and this explains Mr. Nelson only mentioning one portion of it, that to the west of Mr. Charron's farm. That part which extends to the Longueuil hill was easily visible at the beginning of January.

The ice did not move during the shove below the jam on the Pointe aux Trembles side. At this place the ice was formed of water without snow. I noticed that the snow ice is more dangerous for jamming than the green ice.

#### *Means of Preventing Inundation.*

I do not think there are any absolute means of preventing inundations, but some may be of great assistance. Those I will take the liberty to suggest will, I think, be advantageous to Montreal and its environs.

I will mention three:

First means.—To prevent anyone whatever from throwing earth into the river in places dangerous for ice. The earth excavated in the port should be thrown at the upper part of the small Islands of Longueuil, and not on the west side, so as to lengthen the Island and not to widen it.

The earth from the *battures* of Pointe aux-Trembles should be dumped at the lower end of the first Islands of Varennes.

The channel between Boucherville and Longue Pointe should also be examined next spring, and if the earth has been dumped all along the shores as it is in certain parts, it should be removed without delay.

Second means.—It would be necessary to deepen the river on the Boucherville side, i.e., at the two extremities of the Islands of Longueuil and St. Joseph, near the properties of Messrs. Damase Charron and G. Deschambault. If a jam should occur on the *battures* of Longue Pointe or Pointe aux Trembles the water would escape by the Boucherville River, which empties itself lower than the *battures* of Pointe aux Trembles.

Somebody has suggested excavating the *batture* of Longue Pointe. But let us suppose that the jam between the islands and Longue Pointe should be on the *battures*



of Pointe aux Trembles, the Boucherville being obstructed as it is now, the water could not escape by Boucherville and the result would be the same for Montreal.

Let us remark that it would only be necessary to deepen the two extremities of the Boucherville River, because elsewhere the water is deep.

Third means.—This would be principally in view of preventing inundations in the autumn—those which cause the most damage. It would not cost much. It would consist in forming two or three small islands, a few hundred yards of earth dumped on the lower portion of Ile St. Joseph on the Boucherville side.

The reason is this: From the first frosts of December, the river carries ice towards Boucherville, but the mouth of the river in the Islands of Longueuil being narrow, the ice immediately piles up leaving the rest of the Boucherville River free from ice. When the ice ascends St. Mary's current, it shoves and breaks down this barrier, which then piles up on the islands of Longueuil and causes a jam on that side. See what happened last autumn. This blockade caused the jam in the Boucherville River. All the residents of the islands feared the descent of the blockade. This is always a cause of trouble in the river.

The small islets I should wish to see formed would have the effect of stopping the first ice in the autumn, and good ice would form on the whole Boucherville river from the lower portion of Ile St. Joseph to St. Helen's Island and this on the first frosts. This portion of the river would be strong enough to resist the shove, which would only be felt along the shore, as was shown by experience for several years, and it would be a surety that no jam would form from the north-east portion of St. Helen's Island to Varennes, on the Boucherville side. Let us suppose that a jam were to form on the *battures* of Longue Pointe or Pointe aux Trembles; a third of the river at least would be free and would give passage to the water.

I remember three years when the ice had shoved opposite my property in Ile St. Joseph and Boucherville Village. The shove was considerable, and nevertheless it was only felt a little on the shores of the Boucherville River. When all the Boucherville River is covered with good ice as far as St. Helen's Island nothing will be able to break this large extent of ice, and there will always be a free passage to allow the water to pass on the Boucherville side.

These islets would require to be small and low so as not to stop the ice in the spring. They should be built up on the rock mentioned above. The river is shallow at this place. It would be outside of the ship channel, and would in no wise obstruct navigation. The earth taken from the ship channel might be used for this purpose.

#### *The Cost of these Works.*

The first means suggested would only cost the good will of the harbor engineer.

The third means would cost little. It would be sufficient to dump a few barge loads of earth on spots selected beforehand.

Lastly, the second means, the excavation of the entrance and outlet of the Boucherville River would cost something, it is true; but I do not think it would cost more than the excavation of the *batture* of Longue Pointe.

#### *Resumé.*

I believe the inundations at Montreal and vicinity to be caused by the ice jamming on the *battures* of Longue Pointe and the Longueuil Islands, and on the *battures* of Pointe aux Trembles and the first island of Varennes. These jams are caused by the shoving of the ice which descends the St. Mary's current, and which is the principal cause of all the inundations.

And that the means of preventing them would be:

1st. To prevent the obstruction of the bed of the river by the earth excavated by the dredges;

2nd. To deepen the two extremities of the Boucherville River;

3rd. To form two or three small islets between Ile St. Joseph and the lower portion of the parish of Boucherville.

In terminating I must say I am greatly interested in seeing the end of these inundations, as all my property is situated in the Boucherville islands.

If your committee wishes for more ample information from me, I will have great pleasure to be at your service.

I have the honor to be your humble servant,

T. B. DE GROSOIS.

BOUCHERVILLE, 15th February, 1884.

#### EVIDENCE OF ALDERMAN MOUNT.

##### *Blaming the Clerk of the Weather.*

Alderman Mount said he desired to explain his theory of the inundation of 1884.

For about fourteen years he had been living at the foot of the current, and was in a position to notice the phenomena attending the river floods. He considered that the inundation had been caused by the manner in which the ice had formed this winter, which was quite different from other years. This winter the ice took first early in December, then eight or ten days' thaw ensued, when it was sometimes above and sometimes below freezing point. The ice then shoved down as far as Longue Pointe on to the shoals, and remained until it took a second time. During the mild weather, however, the snow or frasil packed and formed a barrier, which he considered was the cause of the inundation. About the 4th or 5th of January there was severe weather again, but the ice was not sufficiently strong to break up the barrier which had formed, and which was, in his opinion, the cause of the flood. Until the ice has reached what we call "les trois roches" it is said not to be firm; when the ice is strong it remains firm, and there cannot be any shove.

J. W. MOUNT, M. D.

#### EVIDENCE OF MR. P. W. ST. GEORGE, CITY SURVEYOR.

##### *Recommending Scientific Investigation.*

Mr. P. W. St. George, city surveyor, said that the plan submitted by Mr. Britain showing the level of the water in the river at the different dates, shows that on the 3rd January the water had risen four feet, and that there was no dam between this city and Longue Point. It was mentioned in the papers that Longueuil was not affected by the rise; but this was not so, as the water in Longueuil was at the same height as on the Hochelaga shore.

This year Mr. J. M. Nelson, assistant engineer of the Harbor Commissioners, has taken surveys and prepared plans from which valuable information could be had, and he would ask that these plans be submitted to the committee.

He would also recommend that engineers be appointed by the Government to investigate this ice phenomenon for a number of years as one could not form an opinion on one year's experience.

PERCIVAL W. ST. GEORGE.

#### EVIDENCE OF MR. ALFRED BRITAIN, ASSISTANT CITY SURVEYOR.

##### *River Levels and the Water.*

In 1869, I examined into the facts in connection with the rising of the river opposite the city in the months of January and April, with a view of determining the best location for the outfall of the city sewerage. It being an accepted fact that the rise of water in the harbor was caused by ice obstructions opposite or below the city, I confined my observations to this side of the river, and between Victoria Bridge and Longue Point.

The only records which I found available were: 1st. A report of the Royal Engineers in 1841, on the periodical flooding of Montreal. 2nd. The gauging of the



water on the lock sill at the entrance of the Lachine Canal. 3rd. Levels taken from Jacques Cartier Square to Handyside Creek, on the previous April, by Mr. Joseph Smith, who was at that time Deputy City Surveyor. I also saw several persons whose names were given me by Mr. Macquisten as being likely to have made useful observations on the subject.

The report of the Royal Engineers shows that these floods always existed, more or less, during January and April, and that their frequency and extent is less now than formerly. Plans also must have accompanied this report, but I found no traces of them; they would be of little service, as owing to the changes in the city since they were made their designs would be impracticable at the present date.

The daily record of the height of water at the entrance of the Lachine Canal affords no means of determining whether the height of water recorded was caused by the ice grounding opposite that portion of the city or lower down the river.

The levels taken by Mr. Smith in 1869, extending from Jacques Cartier Square to Longue Point, permit a profile of the surface of the river during flood to be made between those points, and was the only available record up to that date which showed the relative height of the river during flood; they give a fall of 4.33 between Ruisseau Migeon and Handyside Creek, and clearly show that a large jam of ice existed between those points. The flood water in the harbor was unusually high that spring, being two feet above the revetment wall at Jacques Cartier Square.

I took a series of levels during the winter of 1870; they are shown on the accompanying diagram. The first was taken on the 11th January when the water was at it highest point during that season, being one foot below the revetment wall, with a fall from thence to Longueuil ferry of 4.30; and from thence to Longue Point Church of 8.30. After remaining a few days at about that elevation the water went down, and the next rise took place in April. An examination of the accompanying diagram shows that a considerable change in the proportion of fall at the points of observation between Jacques Cartier Square and Longue Point took place; and that during the interval between January and April, obstructions had formed on the shoals in the neighborhood of Longue Point and from thence upwards. It also shows that the grounding of the ice on these lower shoals raised the water there several feet in height without causing a corresponding rise of water opposite the city, for on the 10th of April the water was within two feet of the top of the revetment wall and remained at the same height at that place until the 12th. During this interval of time great quantities of drift ice came down from Laprairie basin and by choking the channel raised the water about two feet, between Hochelaga and Longue Point, without making any change in its height opposite Jacques Cartier wharf.

From levels taken during this winter it appears that the fall of the water between Jacques Cartier Square and Longueuil Ferry varies from 2.00 to 2.4. If the rise of water opposite the city was caused by the accumulations of ice on the shoals lower down the river it would be shown by a corresponding reduction of the fall between these points, or in other words the rapid would be drowned out; but the diagram shows that such is not the case, because when the water is at its highest opposite Jacques Cartier Square there is an increased fall from thence to Longueuil Ferry.

I took corresponding levels in the succeeding year, 1871, they are recorded on the diagram in a similar manner to those taken in 1870 and confirm the conclusions arrived at from the levels taken the previous year.

The diagram submitted by the City Surveyor, Mr. St. George, shows in different colors the flood lines in 1869, 1870, 1871, 1883 and 1884; the January floods are shown by a firm line, and the April floods by a dotted line. In every case these lines show that the height of the water between Hochelaga and Longue Pointe is raised in the spring by the accumulation of ice between these points; without causing a corresponding rise of water opposite the city. This is very marked in the flood lines of 1870 and 1871.

Although I found no record of instrumental levels taken previous to 1869, the evidence of residents on the river bank demonstrated that in some cases an extensive dam had formed below Boucherville causing the village to be flooded. The levels



taken in 1867 clearly show a dam formed between Ruisseau Migeon and Handyside Creek and the village of Longueuil was flooded by it.

The levels taken in 1870 and 1871 show the ice grounded all along the shoals from Longue Pointe to Hochelaga, but no special dam was formed. This year the levels taken by Mr. Nelson, assistant harbor engineer, clearly show that the principal dam is just below Longue Pointe Church.

From the above records it appears that the location of the ice dams is not uniform and that in some cases no special dam is formed between Boucherville and Hochelaga, although the ice always accumulates during the winter months on the shoals between these points and causes the water to rise there without causing a corresponding rise of water opposite the city.

The average fall of the river is less affected between Jacques Cartier wharf and Longueuil ferry than at any other part of the channel, as the depth and rapidity of the current between those points keep it free from drift ice and frasil. If the floods opposite the city were caused by the dams of ice below Hochelaga, St. Mary's current would be drowned out, but the levels taken show that it is not the case and that during floods the fall of water is greater in that current than during ordinary circumstances.

The evidence uniformly goes to demonstrate that the rise of water opposite the city is caused by a dam being formed on the shoals below the Victoria Bridge on the south side of the river. The old Grand Trunk wharf and Moffatt's Island form the nucleus of the dam, and it is rendered solid by the drift ice and frasil. That this wharf is a serious obstruction and diverts a large quantity of water into the north channel that would otherwise pass down the south channel there is little doubt. At ordinary summer level the water is from a foot to eighteen inches higher on the up side of the wharf than upon the down side, and during winter this becomes a solid dam and almost the whole volume of water, increased by frasil and drift ice, has to pass St. Helen's Island by the north channel.

That extensive ice dams occur above Moffatt's Island and raise the water opposite the entrance of the Lachine Canal is also shown by levels taken during the last two years to locate the position of an outfall sewer for Point St. Charles. These levels show that the fall of the river, from one hundred yards above Victoria Bridge to the entrance of the Lachine Canal is as follows, viz. :

When the river is at summer level the fall between these points is 8'0.

When the river is at flood level the fall between these points is 2'03".

These figures show that the natural fall of the water between these points is drowned out by the accumulation of drift ice and frasil, in precisely the same manner that it occurs between Longue Pointe and Hochelaga.

ALFRED BRITAIN.

MONTREAL, 21th March, 1884.

#### EVIDENCE OF MR. LOUIS LESAGE, SUPERINTENDENT MONTREAL WATER WORKS.

##### *High Water Levels from 1853 to 1884.*

Mr. Louis Lesage, Superintendent Montreal Water Works, had no plans to propose, but could make suggestions. He submitted a tabular statement of the high water levels from 1853 to 1884, taken at lower entrance of Lock No. 1, Lachine Canal.

The table showed twelve winter floods, of which seven were followed by spring floods, and one was yet uncertain. Of ten spring floods only three were not preceded by winter floods.

He further said that the obstruction in the channel was generally caused by the large quantity of ice shoving down on the shores of Longue Pointe and Varennes.

LOUIS LESAGE, *Superintendent of Water Works.*

Height of water above datum (M. W. W.) at lower entrance of Lock No. 1, Lachine Canal, at flood times:

Year.	Harbor Closed.	December.	January.	March.	April.	Harbor Opened.
1853.....	.....	—0·5	16·3	.....	.....	.....
1854.....	Dec. 6	—1·1	18·9	.....	.....	April 25
1856.....	3	—1·11	20·6	.....	17·9	24
1858.....	12	—0·10	19·3	.....	17·6	9
1859.....	11	1·3	17·5	17·5	.....	4
1861.....	22	1·0	17·4	.....	22·7	24
1862.....	7	—0·4	17·6	.....	16·5	23
1863.....	12	—0·3	.....	.....	17·9	25
1864.....	11	1·4	18·0	.....	.....	13
1865.....	16	—2·4	17·10	.....	21·9	10
1867.....	6	—2·5	18·8	.....	.....	22
1869.....	6	—0·6	.....	.....	21·5	25
1870.....	18	—1·4	17·6	.....	17·6	18
1873.....	Nov. 26	1·8	.....	.....	19·6	25
1883.....	.....	16·10	.....	.....	.....	.....
1884.....	.....	.....	19·0	.....	.....	.....

\*This went up to 21·7.

Top of revetment wall at Jacques Cartier Square is 19·6.

The above table shows twelve winter floods of which seven were followed by spring floods and one is yet uncertain. It shows ten spring floods only three of which were not preceded by winter floods.

LOUIS LESAGE, *Superintendent of Water Works.*

EVIDENCE OF MR. LEGER, PILOT.

*Build two Rows of Piers above Lachine Rapids.*

Material, plates, No. 24, 6 feet long, 4 feet wide, by  $\frac{2}{8}$  thick, would cost \$147. Making and fitting on plates would cost \$147. Would require 250 pounds of  $\frac{1}{2}$  inch rag bolts 6 inches long, to secure the plates, which would cost 7c. per lb., which would make the sum of \$17.50, which would form total of \$311.00.

*Estimation of Cost of Piers.*

6 piers, 100 feet square, 15 feet high, requiring 13,000 feet each of flat and square hemlock, 78,000 feet at 10c. per foot.....	\$ 78,000
640 toises stone per pier, 3,810 toises at \$6.....	22,040
Workmanship of 78,000 feet timber at 4c. per foot.....	3,120
	<b>\$ 33,960</b>

Mr. Michel Leger, one of the pilots of the upper lakes, was examined, and displayed a plan to the committee. His opinion was that floods could be obviated by the erection of piers and booms at outlets of the lakes, especially at the outlet of Lake St. Louis, which would stop the ice in its course and leave a passage for the frasil.

his  
CHARLES X LEGER,  
mark



Mr. Michel Leger continued his information to the committee. As he thought that the plan which he submitted at the last meeting was not fully comprehensible he would give further details about it. In Lake St. Francis the ice generally broke up about fifteen days after that at Montreal. The consequent shove caused a dam below the city, which was quite impervious. He proposed the construction of two rows of piers or booms, one from Ile Dorval to St. Nicholas, and another just above the Lachine Rapids. In reply to a question by the chairman, he said he had not prepared an estimation of the cost of such construction, but would do so for the next meeting.

his  
CHARLES X LEGER,  
mark

Witness—A. GOSSELIN.

EVIDENCE OF MR. G. H. HENSHAW, CIVIL ENGINEER.

*Widen the ship channel at Longue Pointe, open a new channel at Boucherville and clear the channel south of St. Helen's Island.*

Mr. Henshaw said that he had always been proud of Montreal, and always tried to do some good to it. He had always had the idea that something might be done towards making the harbor of Montreal a winter port. His opinion was that we could have a harbor in which vessels could be protected from ice. He had had a good deal of information, and he thought that a great deal of credit was due to the city of Montreal for ascertaining certain facts in this matter, and he hoped that the theory which he would presently give would accord with the facts that had been brought up by our engineers.

One of the most important pieces of evidence, which he had heard so far, was that of Mr. de Grosbois, which did certainly reflect much credit on that gentleman, and he agreed with him in what he had said.

MONTREAL, 24th January, 1884.

Geologists tell us that the valley of the St. Lawrence, in fact the great interior of the continent was in past ages a great basin which has been by turns repeatedly depressed and elevated, the successive stratifications at present existing therein, being deposited during each submergence, from material eroded from its shores and highlands. This erosion, speaking in general terms, produced in the course of the last of these changes the alluvial soil which at this moment covers the valley of the river, and through which it has cut its present course.

Referring to the particular part of the river which at present demands our attention, that is, between the Lachine rapids and the foot of the Island of Montreal, you will perceive that as the river excavated its bed and shrank to within its present shores, numerous islands came into existence. These islands were formed by the presence of obstructions which made it easier for the stream to cut its way on both sides of them than to carry them off, that is to say, the river followed what is called the law of least resistance, according to which the stream first divided at the head, and then became again united at the foot as soon as that law permitted. Here, at the heads of Heron and Nun's Islands you can see the groups of boulders which remain of the original barrier which produced these islands, also the small island and ledges above St. Helen's, &c.

Looking at the conformation of this part of the river there can be little doubt that before the shore line took its present shape, its main channel ran in a direction more conformable with its general sweep than it now does; thus, with its north shore about the same as at present, it flowed at a comparatively even width throughout, its main body taking the south or rather east channel at St. Helen's Island until it reached Longue Pointe, then not so defined, but more rounded like Pointe aux Trembles, below which there appears little reason for supposing any material change. The north channel at St. Helen's Island would be small, and very likely at first discharged nearly all its waters through the passage between St. Helen's and Ile Ronde.



At this period all the islands now seen, and perhaps more, were in existence, and beyond some reduction in size from wearing away by the stream, present the same appearance to-day, except in one very notable instance to which I shall presently refer.

As the river continued to cut its way, always choosing the softest places consistent with the correlation of its forces, it began gradually to excavate here, on the outer side of its curve, the Laprairie bay, and as a consequence of the change of curves so produced, began to hollow out the north or west channel, known as the St. Mary's current, as well as the bays now composing the harbors of Montreal and Hochelaga, a process much aided by the bars of rock which impeded the natural deepening of the other channel; the absence of which indeed might have prevented the formation of the north channel at all. Thus we see that this new curve, worn along the Hochelaga shore, is really what has made what we call "Longue Pointe," this being the place where the two currents running side by side fairly resume a united course.

Now I wish to draw your attention to the remarkably exceptional character of one group among all these islands, to which I have alluded, namely the Boucherville Islands.

If you have attentively followed, and admit my reasoning so far, I think you will also agree with me in considering that, originally, these islands were united as one, having the same general oval form as all the rest, and that as the north channel began to monopolize the volume of the river and rushed to its junction with the other off Longue Pointe, the latter was thrust more upon this island, forming first a bay and finally a channel separating one part from the other. This channel, on account of its current being reduced in speed, would, at its lower end, separate into several small passages forming all these small islands. You see they all partake of the same general form with the rest. But this is not all. You perceive that the main island is traversed by several small channels or rivulets absolutely at right angles with the course of the river, dividing it up into pieces, much as a cook would divide a long fish for frying; and here I think in these apparently insignificant water ways we will find the solution of the main difficulty, if not of the whole question.

Between these islands and the south shore there is a narrow channel navigable to vessels of small draught, the whole lying well out of the line of the main current of the river. Now surely it might be expected that these narrow passages, and even the channel along the shore, lying as they do in a sort of eddy would silt up; and yet there is no tradition that I know of, of their ever having been different from what they now are. The names of the islands have existed from very early times, and though the passages have been long encumbered with grass and sedge they have never been closed. It is therefore to the condition of their formation that we must look, to explain their preservation; and to do this we will first look briefly at another question, namely, the formation of what is called frasil ice.

This question, upon which a great deal has been said and written, I would like very much to take up at length, but at present it would take us too far from our subject. I will therefore only say that what I have every reason to believe is the true theory, one which I may be pardoned for looking upon with some satisfaction as being my own, is this, as applied to this special locality:—

In very cold weather the water passing down the Lachine Rapids, becomes practically reduced in temperature below freezing point, and passing beneath the slower moving waters at their foot, quickly refrigerates the stones and boulders spread over the bottom of the great area below, converting it into a veritable nursery for the production of frasil ice. There is plenty of evidence of this latter fact, which I will not now stay to give. The frasil thus formed is continually being broken off in small quantities and floated down, but when a sudden thaw occurs, it detaches itself in large masses like heaps of gigantic icy bars, and floats down until it finds a place shallow enough to hold it between the under surface of the ice and the bottom, where it stays and is packed in, and extended by succeeding masses, until the water way is so narrowed as to cause a more or less sudden rise of water.

The fluctuations or partial fails, that follow rises, are due to the breaking away of parts of these dams when lifted by the rise.

Thus we may fairly assume that frasil ice is the immediate cause of the rise of the river in winter, for it is only in the breaking up of the river in spring that masses of ice at all capable of blocking such a channel are on the move. This choking of the river by frasil ice is of yearly occurrence, for there is always more or less of rise, therefore it is only when the conditions are most favorable for the production of this substance that a flood occurs. Again, so long as the normal course of the stream is not interfered with, there will be little difference of locality in the deposit, but only of quantity. One other fact, we are apt to lose sight of, must be borne steadily in mind, and that is, that the volume of the river in winter, except in heavy thaws, scarcely ever surpasses that of low water in summer. This is important to remember because it is this lowness of the water which narrows the space between the surface ice and the bottom. Hence the lower the water at the beginning the more rapid and extensive is the formation of the dam, if all other conditions are the same.

Bearing all this in mind, let us see what course the frasil ice once in motion will take. The south channel being shallow and obstructed would attract but little and the mass would be carried by the current directly down against the city, and, depositing its quota among the wharves, it would sweep along the Hochelaga shore towards Longue Pointe. A small portion would be attracted by the current between St. Helen's Island and Ile Ronde, but the proportion of this would be so small, that the removal of this latter island, so strongly advocated by some, would not probably make a noticeable difference. Arrived at Longue Pointe it would shoot out a talus in the direction of the shoal at that place, across the main channel, and towards the opening in the Boucherville Islands. Immediately the river would begin to rise, in proportion to the obstruction formed, until the force of the current became sufficient to break off or deflect the end of the talus and carry away the surplus frasil, to lodge among the islands below.

The river by this time has risen enough to enable a considerable quantity of frasil from above to descend the south channel, following of course its deepest part, and obstructing the shoal in front of Longueuil, until opposite Longue Pointe, it is thrust aside by the main northern current and fills up the channel or cul-de-sac between the Boucherville Islands, practically confining the whole volume of the river to the present ship channel.

And now we come to the explanation of these small lateral passages which so curiously divide the Boucherville Islands. The confined water of the main channel rises considerably higher than that of the narrow channel along the south shore, and hence in escaping beneath the ice, these little channels have been cut. Thus these channels are winter torn and are not silted up in the summer because every winter they are washed out by the same agency that originally produced them.

This then is my theory of the cause of the winter floods which affect the city of Montreal, based upon my investigations into the character of frasil ice and its effects; and I pretty confidently expect that the result of the examinations undertaken by the city and harbor engineers, now in progress, will confirm it in every important point.

#### *The Remedy.*

Assuming my theory to be correct, I would confidently recommend:

1st. Widening the ship channel at Longue Pointe by cutting the flanking shoal entirely away, close up to the shore, and so straightening as well as widening the channel.

2nd. The conversion of the cul-de-sac in the Boucherville Islands into a channel of relief, by giving an exit below.

3rd. Removing Moffat's Island and clearing the south channel of all large boulders and projecting rock ledges



All this would not, of course, prevent the formation of frasil ice, but it will remove it to a safe distance; and for the same reason, very largely diminish chances of ice jams in the spring, if not entirely remove them.

It would be as idle to attempt the entire prevention of rises in the river as to do away with the ebb and flow of the tide; but we may reasonably expect to be able to keep these rises from becoming floods.

I would add in reference to my third recommendation, that the excavation of the south channel at St. Helen's Island to a depth sufficient for the river traffic in the summer, would be still more effective, and I confidently predict that this will some day be done, but unless it is made part of a more comprehensive scheme of harbor improvement, it is not to be recommended, since, by itself, it would have the effect of lowering the harbor level during the dry summer season, which also means a reduction of depth upon the lower sill of the canal lock.

GEORGE H. HENSHAW, C.E.

#### EVIDENCE OF MR. JOHN KENNEDY, HARBOR ENGINEER.

Mr. John Kennedy, Chief Engineer of the Harbor Commissioners, produced a number of charts and maps showing accumulations of ice at various points in the channel, depth and width, taken at times of flood.

He explained that the flood of last fall at Montreal was caused by a general diminution of the capacity of the channel from the Victoria Bridge to below Longue Pointe and not by an ice jam forming a dam at any definite point. Levels taken during the flood show only about a foot of backing up of the river at the large ice jam at Longue Pointe, but from that to the bridge there was a gradual increase of the surface inclination to an average of about 20 inches per mile, as against 6 inches per mile in summer. A coating of frasil ice on the bottom and accumulations under the surface ice might easily increase the surface slope of the water, say an inch per mile, and even this little increase extended for miles would have a very marked effect on the water level. Add to this solid accumulations or jams at various points, still further reducing the channel and increasing the slope, and floods are easily accounted for at Montreal.

Floods occur at many points between Cornwall and Quebec, as well as at Montreal; at Cape la Roche, for instance, the water rises in such a way as sometimes to flood Batiscan. Three Rivers is also flooded every five years. Ice jams are frequent at Cornwall, and the water powers of the large factories and mills there are sometimes drowned out all winter. From these facts it may be gathered that the ice accumulates every place where a rapid current changes to a slow one, and that it often jams in such a way as to increase the hydraulic inclination more or less abruptly, and thereby causes a flood.

In the case of Montreal it is well known that the ice "takes" first at the Boucherville Islands, and the river from that to Lachine is open much later. If the frost is very severe during that time, floating ice and frasil are formed very fast in the open water of the Lachine Rapids and Laprairie Basin, and those are floated down to the stationary ice till the whole harbor is not only covered with packed ice, but immense quantities are carried under until the area of the channel is greatly reduced. The combined effect of the friction of the surface ice and the choking up of the channel beneath is to increase the surface slope of the river, from about the Boucherville Islands to the city, to a greater or less extent, and in some years to such extent as to flood the lower streets. The recorded levels and careful observations are few and incomplete, but so far as they go, they show that floods are due to this gradual rise over a considerable distance, and not to the ice jams which appear so formidable upon the surface.

In 1862, at the time of the flood, levels of the water in the river were taken by the Road Department which he thought were still on record in the Road Department.

He was of opinion that frasil forms everywhere in open water and extreme cold weather, whether the water be in rapid motion or otherwise. He is not aware of



any remedial measures yet proposed which could be relied upon to prevent floods. The dredging hitherto done had made only an insignificant ditch in the bed of the river as compared with its whole enormous volume. There are no local obstructions in the river at Montreal by the removal of which we could hope to entirely relieve Montreal.

The building of piers at the foot of Lakes St. Francis and St. Louis might do some good, but would not affect the general question.

Mr. John Kennedy, harbor engineer, continued his evidence as to the nature and extent of the several inundations which had occurred during the last twenty years, and although not now prepared to offer any suggestions for the prevention of floods in future, was of opinion that they could be at least mitigated. The information as to the important facts and conditions which accompany floods are so meagre and fragmentary that it would be unwise to base a scheme of prevention upon it. He strongly advocated a comprehensive series of observations and survey of the river from Varennes to Lake St. Louis, for the purpose of obtaining full and accurate information as to all the facts accompanying floods. This could only be done at considerable expense, but it is the first essential step towards dealing with this important question.

Mr. Kennedy in reply to a question of the Chairman said he thought that if the main channel about the Boucherville Islands were widened and straightened it would be better, or at least in the right direction. He could not say what this would cost without further surveys. The probable cost of making the surveys between the city and the Boucherville Islands would be about \$500, after which the cost of widening and deepening the channel could be very easily determined.

Mr. Cramp asked how long it would take to make a survey; to which Mr. Kennedy replied that in summer a survey could be made in about a month's time.

In reply to a question by Mr. Jones, Mr. Kennedy said some of the pieces of ice which pass through the harbor are very large and some very small. Some of the pieces were so large that it was puzzling to know how they could pass under the Victoria Bridge. He did not think that the construction of another bridge would do any real good towards protecting the city from floods.

JOHN KENNEDY.

MONTREAL, 3rd April, 1884.

To the Chairman of the Flood Committee.

DEAR SIR,—I desire to record the following remarks in reply to the opinions expressed by the harbor engineer at your meeting on Tuesday last, which the lateness of the hour prevented my making on that occasion.

It is neither reasonable to expect, nor to be desired, that Mr. Kennedy, occupying as he does so important an official position in relation to the subject, should be other than extremely cautious in either adopting or condemning views which further investigation may or may not prove to be erroneous or inadequate. I therefore take his remarks to be rather the expressions of his present impressions than the result of settled conviction.

I entirely agree with him as to the actual facts presented by him. There can be no question that the river is high from one end to the other, and that floods take place at other points beside Montreal; but the present question does not concern them, neither is there any doubt as to the very slight winter variations in the hydraulic slope of the river, observed during floods; but this fact, taken only by itself, constitutes no argument, or rather might reduce it to the absurd alternative that there either could never be a flood, or that there must always be a flood. Of course Mr. Kennedy does not mean this, and I mention it only for the benefit of those not well acquainted with technicalities. If, however, it is his opinion that the whole river would have to be treated in order to remove floods from Montreal, then I cannot agree with him. The hydraulic slope of the river is composed of many various slopes, due each to the nature of the obstructions encountered, and is an average of

all. I hold it, therefore, quite possible to materially alter the slope at one spot, without at all affecting the general hydraulic slope of the whole. In fact it is a natural alteration of this kind, though in an opposite direction to that desired, that has caused the flood.

Again, no doubt, in summer the ship channel, as Mr. Kennedy says, is but a scratch in the bed of the St. Lawrence, but to my mind in winter its relative importance is vastly increased, since, judging from the few cross-sections taken, it, together with one or more of the natural channels, constitutes at certain places the sole outlet for the volume of the river, and consequently has to make up in height what it lacks in width; unless, therefore it can be shown that there is no larger area below the obstruction than at it, I can see no valid reason against enlarging the opening at the obstruction. Whatever possible difference there may be between Mr. Kennedy's opinions and mine, I think at least he will agree with me in this: that, considering the statements made as to the coincidence of floods with certain dams of ice, by Mr. Grosbois and others, the public will be scarcely satisfied until such examinations are made as will prove or disprove their agency in causing floods in the city.

I may add that the facts adduced, so far, by the investigation, have produced a strong impression in my mind that we have narrowly escaped perhaps the heaviest spring flood that has ever visited our city. Had the late unusual thaw of ten days and nights been extended a few days longer, a movement of the ice of a very dangerous character must have taken place. This has, however, happily been averted until the ice has become so rotten as no longer to be capable of adhesion in large masses; but the lesson it teaches is certainly not to fold our hands with the Turk, and cry Kismet; it is fate.

I remain, dear sir, your very obedient servant,

GEORGE H. HENSHAW.

Mr. LOUIS ST. DENIS, of the city of Montreal, testified as follows:—

I am a pilot and am well acquainted with the St. Lawrence and Ottawa Rivers. I would recommend, in order to prevent future inundation, that piers should be built across the Chateauguay shore from the south to the north channel, so as to retain the ice there and keep it from choking the river lower down.

The piers could be built on the shoals where the water is not more than three feet in some places and a little more in other places. A part of the work can be done this winter. For further reference I would refer you to my plan. I am well recommended by several marine inspectors.

LOUIS ST. DENIS.

EVIDENCE OF Mr. J. M. NELSON, ASSISTANT HARBOR ENGINEER.

*Dynamite Useless.*

Mr. J. M. Nelson stated that there was a difference of only four inches in the level of the water between Longueuil and Hochelaga on the 3d January last. Between Montreal and the latter point there was a fall of three feet four inches, which was a little more than normal, the fall in summer being two feet three inches.

The south channel was nearly blocked up this year, there being no current to speak of and the water was forced down St. Helen's Island, and passed down in the north channel or opposite the city.

The jam at Boucherville was over two miles in length and one mile in breadth. He considered the idea of blowing it up with dynamite was almost impracticable, and would have little or no effect, as it consisted of cakes of ice at the top and frasil below, and with a brittle, yielding substance like this, dynamite having no resistance, it could not do much good. If the dam was blown up it could jam lower down.

J. M. NELSON.



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PLANTAGENET SPRINGS, ONT., 27th April, 1886.

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*To His Worship the Mayor, the Aldermen and the Citizens of Montreal:*

GENTLEMEN,—I herewith address to you a paper written by me on the important subject of the flooding of the city of Montreal and its environs. Were it not for the loss of my flood notes, reports, &c., which I had kept for many years, and which were being in use by the late City Surveyor, I might have made this paper of more value as to precise details.

As it is, I have thrown together some particulars and explanations from memory. I have added thereto such remarks, opinions and suggestions as, in my humble opinion, the importance of the subject merits.

Had I remained in the council it would have been my duty to make use of the preparation made for it.

If I have failed to afford sufficient explanation on any part of the subject which it may be in my power to extend, it is only necessary to call on me to do so.

I am, gentlemen, yours very respectfully,

WM. RODDEN.

*Ice Shoves and Montreal Floods.*

This subject is now and has been one of the most important before the city of Montreal. It is a subject that has received much attention during the last half century. The loss and damage suffered by the people during that time must have exceeded the amount it would have cost to have placed the streets that are below high water mark, sufficiently high to enable the people to use them without interruption, and assist in furnishing a partial remedy.

Many years ago the corporation fixed upon a higher level for flooded streets, and have done much, particularly in St. Ann's Ward, to raise them, some parts of which have received as much as four to eight, ten and twelve feet of filling. It is true there remains much to be done to finish that part of the required work, and it should be very well understood that raising the streets is not all that is needed to save citizens from periodical flooding of their premises.

The people naturally look to their representatives in council to consider and adopt measures of relief, and also should look to their representatives in Parliament to consider whether or not the causes are outside the boundaries of the municipality of Montreal, and they should come to the assistance of the city corporation in obtaining the performance of what is needed to be done on the river and harbor works outside of the limits of the city's control, and obtain legislation for the corporation, giving powers to do their part of the work without liability for damages.

The great efforts made to keep down taxes, the desire of members representing other sections of the city to obtain all they can from the city treasury to improve their sections, have often made it difficult to obtain suitable expenditures on the flooded section of the city, which are the outlets for the trade of the city to its harbor, the canal and railway stations. It would be out of place for me here to give particulars of the persistent efforts of members of council representing the flooded sections to secure a full share of attention, nor is it necessary I should speak of what was done in my time of membership—the work done speaks for itself; if more was not accomplished it was due to the magnitude of the required work, the impossibility of reconciling the different opinions on the causes of flooding to justify entering upon a full and perfect system of relief, and the difficulty of bringing together all the interests outside of the city limits that sooner or later must participate in the expense of the necessary work and its benefits.

I can well understand the difficulties of the position of an alderman, particularly if he had much business of his own to look after, while he is at work on extensive and troublesome municipal questions, and if at all zealous in the performance of public duties, his own interests are damaged, unless he is more fortunate than is usual in having about him persons thoroughly reliable.



Then again, an alderman is surrounded by a multiplicity of persons interested in smaller questions turning up from day to day, pressed upon him by electors, each often unwilling to look at any subject excepting as it troubles or benefits himself. Thus the aldermen are subject to great trials, hindered often from full study of great questions, and eventually either become disgusted with the humiliating position and retire, or take an independent stand in what they consider right, and have all sorts of unjust motives heaped upon them till they feel it impossible longer to continue the connection, and leave the work they were engaged in to be longer delayed or to fall into the hands of persons unwilling or unable to give the necessary time and study to the task.

Feeling as I do the full force of the foregoing expressions, I have no difficulty in understanding now that the death or removal of a civic officer and the retiring of aldermen who labored on such important questions may to some extent account for delays, particularly when it is considered that the great majority of the council represent other sections of the city claiming their attention. These considerations have led me to the conclusion that the city council might appoint a commission with the mayor and chairman of finance *ex-officio* members, who, with the assistance of a first-class engineer of experience in this country, acquainted with the action of the ice and the floods, could take all necessary means to consider, report upon, and eventually carry out whatever work the city council might determine to be necessary to be performed within their jurisdiction.

The Government and the Harbor Commissioners as well as adjoining municipalities, are also so largely interested in this question, it is important that co-operation be secured from them.

Any legislation necessary should be at once obtained, that the city may have full powers to act in the adoption of such works as may be found necessary, and that the proposed works may be done without the city being exposed to liability for damages for their performance.

Following the foregoing introduction of the subject, it may be proper to explain that the writer was too young to observe the action of the ice and floods previous to the floods of 1837-38 and of the following spring. I well remember that our shop in St. Paul Street and others adjoining were flooded, ice was piled along the river banks, buildings there were injured, the present site of St. Ann's Market thence to the river was an open creek which extended to St. Joseph suburbs, the old Montreal College was surrounded with water as if standing in a lake, extending round to Craig Street, that was then an open creek, overflowing its banks from Fortification Lane to Jurors Street.

Skaters resorted to the open creek at the foot of McGill Street which overflowed St. Paul Street, Point à Calière, and thence to the Lower Lachine Road, along the valley to near the Fraser Farm, and extending also to the lowlands of Cote St. Paul, and from the canal along the lowlands near the Upper Lachine road banks, continuing through to Bonaventure and Craig Streets.

The winter flood of 1837-38 was remarkable for its height and extent, during very cold weather. Much loss and damage occurred, property on the river banks was injured, and there was great suffering by the people flooded. Very little assistance could be taken to them till the ice was so frozen that sleds could be taken by hand, and skaters could travel from St. Paul Street near the old market, now Custom House Square, to Lower Lachine around to Bonaventure and Craig Streets, and on the way look into flooded houses from the second floor windows. So great was the outcry on this occasion, and some time after it, that the Commission of Royal Engineers was ordered to investigate and report upon the causes, and the remedies.

Their report was presented in 1841. I was a clerk in St. Paul Street at the time and remember adding to my flood notes that I commenced in 1837-38, the expressions of old citizens, disapproving the report of engineers, and contending that the ice dams that formed in front of the city were not the only or continued cause of floods; that floods had also been caused by ice shoves that occurred far below the city and far above it.

On one of those occasions of general floods, the roar and crashing of descending ice brought out St. Paul Street merchants to view the immense fields of ice evidently from the upper lakes, passing down below the city. Piles could be seen as far as the eye could discern, evidently grounded on shoals as far as Boucherville or beyond it.

I remember well the cluster of merchant neighbors viewing the magnificent but terrible crushing and piling fields of ice, while they laughed at the idea of \$90,000 to \$100,000 being of much service, and asked one another how many millions of dollars would it take to afford permanent relief. There stood within my hearing such men as the late John Torrance, John Frothingham, Jacob Dewitt, Horatio Gates, Wm. Lyman, Esquires, and others, then as well known. In St. Paul Street many stores and shop floors were again flooded, and many goods damaged. I continued to follow enquiry into the periodical cause and effect of such magnificent yet dangerous spectacles, and I gave attention to the remedies suggested. Those great floods were not confined to Montreal. The changing features of ice jams and floods has been such that, within the twelve months, notes have been taken of shoves and floods that at intervals operated upon every low-lying section of country from Sorel to Beauharnois, extending thence across the Lake to Isle Perrot and St. Ann's. Such extensive floods as the one here referred to were preceded by low waters in the river during the time the ice formed that fall and winter.

The early part of the winter was very cold, accompanied by very light snow falls, and the ice on rivers and lakes formed very thick. In the early part of March mild weather and rain converted the snow on the ice into water, and weakened the ice much more on the upper lakes than upon Lake St. Louis and the harbor; some ice from above that lake came down to the shoals near Beauharnois, causing higher water above. Frost set in on the third night of the thaw; the following morning travelling on the river to Beauharnois from Point Claire was resumed, and I spent that day on the road along the river through Lower Lachine, Point Claire to Isle Perrot, thence across through Beauharnois to St. Timothé and back to the city, doing 75 miles, and as I passed along I viewed each point of interest, which produced a conviction in my mind that the spring flood would be serious and widespread, inasmuch as the ice from Beauharnois was very strong, while that on the lakes above was reported to be much damaged by the thaw, and likely to come down earlier than usual.

The shoals in the narrows above St. Ann's lock were covered by ice jams, the water above was much raised, for several days it was dangerous getting on and off the ice there. Early in April the thaw set in, part of the lake ice increased the jam at St. Ann's and it was very little of the water from the Ottawa passed that point, it passed for some time in the Back River channel. That thaw broke up the ice on the upper lakes, rising of the waters in the channels brought it down, till it came in contact with the jams on the shoals between Lachine and Beauharnois, and there increased the obstruction which held back the water, flooded that town, Chateauguay, part of Isle Perrot, St. Ann's and Point Claire, and obstructed travel on the land roads till the height of water increased enough to lift the ice jams from the shoals and carry the fields of ice down to the shoals between the Victoria Bridge and the Lachine Rapids.

There a large portion of it remained for a time, backing the flood upon the south shore of the river, and extending beyond and above Laprairie, also on all low places of Lower Lachine Road, and the flood came into the city through the drainage outlets under the Lachine Canal, and poured rapidly down William Street to St. Paul Street, and down Bonaventure Street to Craig Street.

While thus the city was being flooded from the west, the water was also operating upon the ice jams, eventually carrying them past the Victoria Bridge into contact with the ice in front of and below the city. The contest between the yet strong ice below, and the very large quantities from above was one of the most grand and terrific scenes of the kind ever witnessed. Mountains of ice were piled up on the river banks as far down as Dalhousie Canadian Pacific Railway station, and across



to St. Helen's and St. Lambert. Had not the island been the stopping place the village of Longueuil would have been destroyed. This stoppage threw the flood for a time back on the city till it reached sufficient height to raise the ice jam and divide the flow of waters to both sides of St. Helen's carrying the flood to parts of Hochelaga, and to all the south shore on to below Boucherville Islands. The river craft wintering there were injured, and the population all along suffered. While this was going on, the ice from the Ottawa was on its way down, a great part passing by the Back River to meet the St. Lawrence ice below the Montreal Island, and both joined passing downwards. At Sorel they met the ice from the Richelieu, did much damage to the river craft and wharves there, and flooded the place. On this occasion the Montreal flood stood at a great height till the breaking up of the ice at Sorel, which came from the St. Lawrence, the Ottawa and the Richelieu.

We may here ask what kind of piers could have been placed in the river to hold the ice above the Victoria Bridge, or above Lachine, and what would they have cost? That if the ice was held there how much of the country above the piers would have been flooded, and who would pay the people that suffered damage?

In the foregoing I have described as brief as possible what occurred during a general flood on one occasion. Fortunately such extensive and far-reaching effects of the river obstructions are of rare occurrence; they are such as to tax the ingenuity of the highest engineering talent, to fully understand and demonstrate thoroughly perfect remedies to obviate the difficulties all along the line.

The question now naturally suggests itself, what has the general flood to teach us in connection with what suffering Montreal endures from floods?

1st. There is no difficulty in arriving at the conclusion that we cannot control the action of the ice in its departure and onward course, or, in other words, keep it from coming down upon us without expending a large sum of money, and if authority was obtained from Parliament it would cause the city to be liable for all damages that might arise to the people and their property that would be in any way injured thereby.

2nd. That even if this could be done there is not any assurance of perfect relief from floods by that means, owing to the nature of the channel from the city front downwards and its liability to become obstructed at some of the shoals below the city, when all the ice below the piers would collect, and with frasil forming at different points that would be carried down to the place of obstruction, and there cause contraction that would not admit of the passage of the great volume of water that would come down the St. Lawrence and Ottawa rivers each season that the thaw or rains would set in from the west and south much earlier than they do from the district of Montreal downwards.

Having explained my experience and information of a general flood extending over a distance of about sixty miles, over twenty of which are above the city, I will now explain a few of the inundations and their causes that have occurred in my time, producing the greatest damage to Montreal and its adjoining municipalities. I have observed at least six different places that the ice has formed dams by being shoved and piled in as many different forms at different times.

The effect of each one of these was to hold back the flood upon the city till the necessary head of water was produced to lift the ice out of the way. This convinced me that the removal of the obstructions in the channel from below Lachine Rapids to Bout de l'Isle, would have to be considered in the general plan of river works, should such works be intended as a perfect remedy. Yet it would be possible to afford partial relief by performing the most important of the river works, which if carried out, would facilitate the adoption of city works, with less disturbance of existing drainage, and less expensive surface works.

The six places referred to may be described as follows:—

1st. The shoals above the Victoria Bridge. When the ice forms there and is added to by ice at times descending from the shoals above, while ice below the bridge remains firm, then the accumulations above remain firm, reduce the water way, and an early thaw above brings down ice as well as water, and thus increases the ice jam



and the flood, which I have seen operate in two ways : once the ice was driven to the height of about sixteen feet over the south embankment of the Victoria Bridge, on another occasion the ice was piled on the banks at the south-west side of the bridge ; one caused greater flood on the south of the river from St. Lambert to Laprairie till the channel opened near the city, the other sent the flood to Lower Lachine, letting it into the city by the low lands of River St. Pierre and Point St. Charles, thence into the city at William Street, St. Joseph Street and Bonaventure Street West.

2nd. The harbor shoals. When the ice forms there to a great strength and water is low, the ice from the Victoria Bridge shoves to it and piles on those shoals till it reaches the St. Lambert wharf and south banks of the river there ; eventually it closes the water-way till the water lifts the ice. On some occasions the greatest weight of ice will be forced to a great height on the city side, then the channel will first open on the south side of St. Helen's Island, making an opening on the Longueuil side and causing a great flood there ; on other occasions the strongest and greatest body of ice will form on the St. Lambert wharf and south channel, then the harbor and city will suffer most from the flood, till it lifts the ice between the city and the islands. The shove in that case is carried to the shoals below the islands and eventually spreads towards Longueuil till it again rests upon shoals, or, by force of the water, is carried on till the accumulation so increases as to form another dam, above or below Longueuil, as the case may be.

3rd. The shoals and Isle Ronde between Hochelaga and Longueuil. When the ice forms above Victoria Bridge and from Lachine upwards before the harbor ice is firm, the ice has also become firm on those shoals below St. Helen's Island. A change of weather and of wind has sent the harbor ice with some from above, down the current to those shoals till they become packed and form a dam, which gains additional strength by ice descending to it backing the waters up to flood the city till again forced onwards down the river, or into larger piles on shoals below Longueuil, or is so broken up as to open the channel.

4th. The shoals from Hochelaga and below to Longue Pointe across the river and from Longueuil down the same distance on the south side.

When the ice forms first and firmly here and below, and the ice continues to descend in moderate quantities, it packs and fills the channel, touching all downward obstructions in the river and gradually raises the water, still filling as it receives the descending ice, till a cold night or two adds to the strength, and a dam is found flooding all above it till the water lifts the ice and clears the channel.

5th. The shoals from Longue Pointe downwards across the river to south shore.

It has occurred that the same operation as is above described takes place here with the same effect. Frequently the effect is prolonged by the descending ice continuing to pack on the shoals upwards till St. Helen's Island is reached ; lake ice coming down at times keeps up the supply till the whole river is filled from Victoria Bridge down to the Longue Pointe ice jam, thus the fact of so many miles of ice packed from that place or below it to the city, makes it more difficult to remove or lift, consequently the greater the flood and the longer period it must continue till the force of the water moves it down, sometimes only to pile it up again in some other place below.

6. The shoals from Bout de l'Isle extending to Boucherville Island and the junction of the St. Lawrence and Ottawa Rivers downwards.

In this place, ice of the St. Lawrence and the Ottawa at times meet. If the ice below the place of meeting is strong and packed the coming ice adds to its piles, creates a jam which extends upwards, as in previous cases is explained ; on some occasions it makes the complication more serious and extensive, creating a flood of long or short duration, according to the weather, the strength of the ice below, and the quantity arriving from the lakes above.

Thus far I have endeavored to show in a rough way what I have seen different times at these places of the action of the ice and the waters of the river, and how they combine to produce the floods that cause so much loss to Montreal and adjoining municipalities. I have explained how a general flood is produced. One of those



floods was very alarming and injurious; two or three others such occurring in my time were not so far reaching or destructive. One such occurring in mid winter would be most serious. It is fortunate that cold set in to check the thaw and rainfall this year, or Montreal would have suffered dreadfully; too much occurred as it was.

One of the great dangers lies in a thaw setting in with rainfalls west and south of Montreal, while the ice at and below the city is strong, and resists being moved down by the coming ice from above. About one out of every five floods has been a general flood, extending below and above Montreal, and about one in three Montreal has become the chief sufferer. Next examine what has been done to remedy flooding.

After the great flood of 1837-38 the Government ordered an examination and report from the Royal Engineers. In 1841 it was made. From it we learn that their attention was confined to a section of the river not high enough up, nor sufficiently low down the river. Evidently they were not aware of the extent and location of the several shoals upon which ice piled, or, if they were, they did not consider them of importance. The substance of their report suggests their unwillingness to recommend any important work upon the river, although they mention "leaving it for future consideration."

They recommend works to raise the revetment wall, change the course of the River St. Pierre, close all culverts and drains, draw off the city streams to a lower level, and outside waters to be drained by Craig Street—all at an estimated expenditure of about \$94,000.

When I entered the city council as representative of St. Ann's Ward, I continued investigating this subject, and I obtained the opinion of Messrs. Sir Wm. Logan, John Young, John Redpath and John Molson, and others, which were unanimously given: That the report of the Royal Engineers did not cover the whole ground and causes of the floods, that the expense to be incurred was greatly understated, and that the works contemplated were not sufficient to perfect a remedy; they also agreed with me in urging the filling up to the water level all the low parts of the city subject to floods.

While the filling up of low places was going on authority was obtained from the city council to make surveys of ice jams. This was done from time to time by the city surveyor and his assistants, the maps of which show that the effect is as herein stated, and that when the ice jams extend far below the city the difference of water level between the Victoria Bridge and below Hochelaga is but trifling, thus the difficulty of draining into the river within the city limits is serious when there is a high flood, involving the necessity of going far below the city to escape the difficulty caused by water breaking up the discharging outlets. When the ice jams extend to the foot of the island of Montreal, &c., the Ottawa River ice joins that of the St. Lawrence River on the shoals below, the drainage difficulty is further augmented.

It was my desire that the late Mr. McQuesten, city surveyor, should make a thorough report of the different ice jams and floods, and his surveys taken in each winter when he was at work upon it. I gave him the use of my ice and flood notes, taken from 1837-38 onward. These I have not been able to find, therefore I have written these descriptions on floods from memory without giving the dates and measurements my memorandum contained.

It should be remembered that the city has expended a very large amount in improving the flooded district. Craig and Commissioners Street creeks are drained and filled. St. Paul Street, College Street, St. Joseph Street and all streets between it and the canal and Point St. Charles, were more or less raised from 4 to 10 feet, in some places there were 12 feet of filling; Bonaventure Street, low places were raised and tunnelled. The waterworks embankments were raised, and a series of large and expensive tunnels were constructed, some of which were made to discharge at places I could not approve, they furnish direct and speedy means of conveying river floods to the city, from below the Victoria Bridge to Point St. Charles, from the harbor to William Street to Griffintown, and from the same place through to the McGill Street tunnel to St. Paul, Craig and Bonaventure Streets.

The large amount expended on drainage and its yet imperfect state, is evidence of the accuracy of views I frequently advocated in council, namely :

That before such extensive works were undertaken, a perfect system should be fully considered with the assistance of the best engineering talent obtainable, and what is done should be a part of the whole, and suitable for the future city of Montreal. It is impossible to expect a city surveyor, who has the general and ordinary street works of the city to direct and provide for, to give up the time and study necessary to accomplish within any early period, preparatory measures and calculations for the works of so extensive an undertaking as perfect protection from floods.

I do not pretend to possess engineering skill, yet my studies have been in that direction, which, with the amount of time and attention I have had occasion to give to all such matters, and more particularly to this, and the waterworks questions, with other public works of improvement in the city of Montreal, I may be excused if on so important an occasion, I offer opinions touching the various remedies for floods which have been advanced and discussed since 1841.

It is evident from the various forms taken by the ice jams that the floods are caused by ice accumulations on the shoals and islands in the river at many places. Some relief might be obtained by the removal of a part of the river obstructions which is a work that could only be undertaken by the Government and the Harbor Commissioners, which work might be made of service to the Montreal harbor and an advantage to inland as well as sea going vessels—each piece of obstruction that is removed would assist in the remedy.

The obstructions begin above the Victoria Bridge and extend to the city front, taking in the St. Lambert wharf and shoals, also the south channel at St. Helen's Island, and the north channel from St. Helen's down. The removal of any one obstruction would not perfect the remedy, inasmuch as the damage caused by floods extends from the foot of Beauharnois Canal to all the low lands, as far down at times as Sorel, when ice jams form on the islands below Sorel. Therefore there appears to exist a fair claim on the Government for assistance, such as has been given on smaller streams and less important places. Parliament should act at once.

#### *City and Suburban Drainage.*

When the city undertakes to perform works necessary to keep out river floods, extensive drainage is needed for surface water from thaws and rainfalls over a large area outside of the city; its drainage, water works and that of the city must be provided for, and in a great measure taken to discharge far below the city. Any system which does not embrace all outlying lands draining towards the city cannot be considered reliable. If the connection between city drains and the river is shut off there will be floods in the spring, caused by the drainage and thaws or rains unless provided for. Therefore it is important to make arrangements with all outside municipalities to provide for their part of the expense of drainage, or to become a part of the city. Should the city find it necessary (as I believe it will) to carry drainage through the municipality north-east of the city, the power to do so, or annexation, would be necessary.

The land draining to the city extends from beyond Monklands on the mountain along the mountain ridge to its north-east end, thence to north of Mile End, through to Petite Cote, thence along the high lands north-easterly to below Hochelaga. There will be added to this the drainage of St. Gabriel, parts of Verdun and all low lands north of the canal from the city limits, for some distance above St. Henry.

The city surveyor would have no difficulty in preparing a plan showing the limits of the territory which sends its water-shed to within the city limits, and the distance below the city it should discharge.

In consequence of the insufficiency of the Craig Street and other tunnels, it would be necessary to construct others at higher levels, each commencing at the extreme western proposed extension of city limits and extending to the proposed south-eastern limit or near it; these discharge into one or more larger tunnels afford-



ing sufficient capacity and discharging at the lowest possible point on the island of Montreal, to secure a proper outlet, without hindrance from river floods or ice jams. Even if the city should not undertake pumping of water from the sewers that discharge into the harbor, the day is not far distant when tunnels at higher points in the city would be necessary.

If it is desired to adopt a system of closing those sewers and erecting pumping machinery it is very important that drainage provision should first be made for floods entering the city from the river above Victoria Bridge, as well as for heavy spring thaws and rainfalls. When ice shoves come on, about the same time in the spring, it will be very difficult to escape being flooded, either from the tunnels or drains that receive back water from the river, while they have enough to do as it is to carry off city and suburban drainage unless aided by additional drainage discharging further down the river, or that every place of discharge be supplied with powerful, well constructed and well protected pumping machinery. I esteem it important that there should be established an outlet or outlets further north-east for part of the drainage, rather than depend entirely on pumping machinery.

Apart entirely from the flood question, portions of the main tunnels that should run east and west on higher levels are extremely important from a sanitary point of view.

Much more might be written on this subject that might appear in the course of the discussion on details, that need not now be put on paper.

The conclusions of this paper may be summed up as follows:

1st. The immediate cause of floods in Montreal is the descent and accumulation of large quantities of ice on the shoals and narrow channels, islands, &c., that are situated at several places in the river from below Sorel to the Lachine Rapids.

The Government and the Harbor Commission are the only and proper authorities to perform works on the river outside of the city limits on the frontage and elsewhere.

When the ice forms a dam above the Victoria Bridge, the flood enters the city from the Lower Lachine road and drains. When it forms on shoals in the harbor, floods enter the drains at Point St. Charles, the low places there and Lower Lachine road; when it forms on the shoals and narrow channels of St. Helen, floods enter the drains of Commissioners, William, McGill, St. Joseph, Bonaventure and Craig Streets, by way of the McGill Street tunnel; when the ice obstructs the north and the south channels at St. Helen's Island, the water rises very rapidly till the ice is lifted and carried to shoals below, either to proceed down the river and lower the flood or to meet resistance from strong ice below the island that rests upon shoals opposite Hochelaga, it is again there hindered from moving and forms another dam that prolongs the flood and produces a height of water that overflows the revetment wall and extends the flood to all the lower parts of the city; when the obstruction is moved down or forms between Longue Pointe and the Boucherville Islands, or further down the river, it floods low places both sides of the river, and passes up the city tunnels that discharge below the city, obstructs all city drainage and hinders the passage away of refuse drainage, thus becomes injurious to health and offensive to even citizens living on higher levels.

These floods vary according to the weather, to storms and to the strength of the ice at and below the city, as compared to that on the upper lakes and bays.

2nd. The remedies that have been suggested are various and extensive, most of those that have appeared seem hasty conclusions, without a full consideration of the whole question and knowledge of all the difficulties,—even engineers contradict one another; nevertheless I have endeavored to consider every point of importance, that my humble efforts admitted, to arrive at conclusions, now presented for consideration by any who may feel disposed to bring a high order of skill and acquired attainments to bear upon the subject.

#### *Recommendations.*

Leave the river works to the Government and the Harbor Commissioners; obtain from the Government and the Harbor Commission assistance to rebuild the

revetment wall, elevate and strengthen it all along the harbor front, till it reaches the embankment of the Victoria Bridge.

Convert the road along the revetment wall into a boulevard, and continue it to the water-works embankment, make the whole sufficiently high and strong to keep out high floods. If the municipality of Verdun annexes to the city, the embankment might be continued from Victoria Bridge along the river front as far up the Lower Lachine road as necessary.

Construct a tunnel under the above roadway of the capacity necessary to carry drainage below the city, and erect there a pumping station to be used when required.

Fill up to a uniform level all low public streets and places that ordinary floods occasionally cover.

Annex all outside municipalities that drain and send water into the city, and that are so located as to be on the route to be adopted for extending city tunnels to a lower place of discharge.

Construct two main tunnels on higher levels than Craig Street to relieve the tunnel there, and let the Craig Street tunnel and those about it discharge into one or more larger tunnels, to be constructed far below the city, discharging into the river at a point as little as possible likely to be interrupted by back water from high floods; and build a pumping station to clear tunnels, if necessary at high floods.

It would be presumption for any other than an engineer of great experience and much knowledge of the localities to undertake the task of considering this question in all its details, without obtaining full and perfect information as to all phases of the action of the ice and waters; and it is out of the question for any person not a first class engineer, even then, to estimate and determine all questions connected with the perfect completion of works in all their details and furnish precise figures to which the cost would amount.

Canada need not import engineers fitted for the task, there is sufficient and reliable engineering talent available in Canada to estimate and direct the work without resorting to expensive experiments.

It is to be hoped that the Government, the Harbor Commission, the Corporation of Montreal, and all the adjoining municipalities, will not hesitate to join heartily in the important work of reclaiming Montreal and its neighborhood, as well as all places that suffer, and thus demonstrate the ability, the enterprise, and the power to subdue all difficulties necessary to retain for the commercial metropolis of Canada that supremacy which thus far has been so nobly earned by our people.

The whole respectfully submitted,

WILLIAM RODDEN.

PLANTAGENET SPRINGS, April, 1886.

N. B.—Since the foregoing was written, Montreal and the surrounding municipalities have suffered from one of the most destructive floods that has been experienced. The ice shoves of last winter accumulated upon the shoals fronting the city and below it. The cold snap that followed ice shoves had the effect of holding the ice in compact masses, in many places resting on the river bottom, till the thaw set in on the river and lakes above, and there swelled the floods that raised the ice while yet strong, and brought it down before the harbor ice had weakened enough to be moved away by the force of the descending strong ice and flood. The resisting power of the piles of ice in and below the harbor caused the descending ice to fill the channels and back up the waters, till the flood reached a height over every other flood but one, in the memory of the writer, and caused much more damage than any preceding flood. Some of this damage need not have occurred had there been a full appreciation of the signs of danger to be found in the strength and quantity of ice near Montreal, when compared with the strength of ice above and the probability of its early downward movement being caused by the early thaw in the west.

WILLIAM RODDEN.



## ON THE PACKING OF THE ICE IN THE RIVER ST. LAWRENCE.

A paper by the late Sir William E. Logan, read before the Geological Society of London, and published in its proceedings Vol. III, page 766, June, 1842. Reprinted, with the author's permission in the Canadian Naturalist, Vol. III, page 115, June, 1853.

The Island of Montreal stands at the confluence of the rivers Ottawa and St. Lawrence, and is the largest of several islands splitting up these mighty streams, which cannot be said to be thoroughly mingled until they have descended some miles below the whole cluster.

The rivers first come in contact in a considerable sheet of water called Lake St. Louis, which separates the upper part of the Island of Montreal from the southern main. But, though the streams here touch, they do not mingle. The waters of the St. Lawrence which are beautifully clear and transparent, keep along the southern shore, while those of the Ottawa, of a darker aspect, though by no means turbid, wash the banks of the island; and the contrast of color they present strongly marks their line of contact for many miles.

Lake St. Louis is at the widest part about six miles broad, with a length of twelve miles. It gradually narrows toward the lower end, and the river as it issues from it, becoming compressed into the space of half a mile, rushes with great violence down the rapids of Lachine, and although the stream is known to be upwards of eight feet deep, it is thrown into huge surges of nearly as many feet high as it passes over its rocky bottom, which at this spot is composed of layers of trap extending into floors that lie in successive steps.

At the termination of this cascade the river expands to a breadth of four miles, and flows gently on, until it again becomes cramped up by islands and shallows opposite the city of Montreal. From Windmill Point and Point St. Charles, above the town, several ledges of rock, composed of trap lying in floors which in seasons of low water are not much below the surface, shoot out into the stream about 1,000 yards; and similar layers pointing to these come out from Longueuil on the opposite shore. In the narrow channel between them, the water, rushing with much force, produce the Sault Normand, and cooped up a little lower down by the Island of St. Helen and several projecting patches of trap, it forms St. Mary's current.

The interval between St. Helen and the South Shore is greater than that between it and Montreal; but the former is so floored and crossed by hard trap rocks, that the St. Lawrence has as yet produced but little effect in wearing them down, while in the latter it has cut out a channel between thirty and forty feet deep, through which the chief part of its waters rush with a velocity equal to six miles per hour. It is computed that by this channel alone upwards of a million of tons flow past the town every minute.

Between this point and Lake St. Peter, about fifty miles down, the river has an average breadth of two miles, and proceeding in its course with a moderate current, accelerated or retarded a little according to the presence or absence of shoals, it enters the lake by a multitude of channels cut through its delta, and forming a group of low flat alluvial islands.

The frosts commence about the end of November, and a margin of ice of some strength soon forms along the shores of the river and around every island and projecting rock in it; and wherever there is still water, it is immediately cased over.

The wind acting on this glacial fringe, breaks off portions in various parts, and these proceeding down the stream constitute a moving border on the outside of the stationary one, which, as the intensity of the cold increases, is continually augmented by the adherence of the ice-sheets which have been coasting along it; and as the stationary border thus robs the moving one, this still further outflanks the other, until in some part the margins from the opposite shores nearly meeting, the floating ice becomes jammed up between them, and a night of severe frost forms a bridge across the river. The first ice bridge below Montreal is usually formed at the



entrance of the river into Lake St. Peter, where the many channels into which the stream is split up greatly assist the process.

As soon as this winter barrier is thrown across (generally toward Christmas) it of course rapidly increases by stopping the progress of the downward floating ice, which has by this time assumed a character of considerable grandeur, nearly the whole surface of the stream being covered with it; and the quantity is so great that, to account for the supply, many, unsatisfied with the supposition of a marginal origin, have recourse to the hypothesis that a very large portion is formed on and derived from the bottom of the river, where rapid currents exist.

But, whatever its origin, it now moves in solid and extensive fields, and whenever it meets with an obstacle in its course, the momentum of the mass breaks up the striking part into huge fragments that pile over one another; or if the obstacle be stationary ice the fragments are driven under it and there closely packed. Beneath the constantly widening ice barrier mentioned an enormous quantity is thus driven, particularly when the barrier gains any position where the current is stronger than usual.

The augmented force with which the masses there move pushes and packs so much below that the space left for the river to flow in is greatly diminished, and the consequence is a perceptible rise of the waters above, which, indeed, from the very first taking of the bridge gradually and slowly increase for a considerable way up.

There is no place on the St. Lawrence where all the phenomena of the taking, packing and shoving of the ice are so grandly displayed as in the neighborhood of Montreal. The violence of the currents is here so great, and the river in some places expands to such a width, that whether we consider the prodigious extent of the masses moved or the force with which they are propelled, nothing can afford a more majestic spectacle or impress the mind more thoroughly with a sense of irresistible power.

Standing for hours together upon the bank overlooking St. Mary's current I have seen league after league of ice crushed and broken against the barrier lower down, and there submerged and crammed beneath; and when we reflect that an operation similar to this occurs in many places from Lake St. Peter upwards, it will not surprise us that the river should gradually swell.

By the time the ice has become stationary at the foot of St. Mary's current the waters of the St. Lawrence have usually risen several feet in the harbor of Montreal, and as the space through which this current flows affords a deep and narrow passage for nearly the whole body of the river, it may well be imagined that when the packing here begins the inundation rapidly increases.

The confined nature of this part of the channel affords a more ready resistance to the progress of the ice, while the violence of the current brings such an abundant supply, and packs it with so much force, that the river dammed up by the barrier, which in many places reaches to the bottom, attains in the harbor a height usually twenty and sometimes twenty-six feet above its summer level; and it is not uncommon between this point and the foot of the current within the distance of a mile to see a difference in elevation of several feet, which undergoes many rapid changes, the waters ebbing or flowing according to the amount of impediment they meet with in their progress from submerged ice.

It is at this period that the grandest movements of the ice occur. From the effect of packing and piling and the accumulation of the snows of the season, the saturation of these with water, and the freezing of the whole into a solid body, it attains the thickness of ten to twenty feet, and even more; and after it has become fixed as far as the eye can reach, a sudden rise in the water, occasioned no doubt in the manner mentioned, lifting up a wide expanse of the whole covering of the river so high as to free and start it from the many points of rest and resistance offered by the bottom, where it had been packed deep enough to touch it, the vast mass is set in motion by the whole hydraulic power of this gigantic stream. Proceeding onward with a truly terrific majesty, it piles up over every obstacle it encounters, and when forced into a narrow part of the channel, the lateral pressure it there exerts drives



the bordage up the banks where it sometimes accumulates to the height of forty or fifty feet. In front of the town of Montreal there has lately been built a magnificent revetment wall of cut limestone to the height of twenty-three feet above the summer level of the river. This wall is now a great protection against the effects of the ice. Broken by it, the ice piles on the street or terrace surmounting it, and there stops; but before the wall was built, the sloping bank guided the moving mass up to gardens and houses in a very dangerous manner, and many accidents used to occur.

It has been known to pile up against the side of a house more than 200 feet from the margin of the river, and there break in at the window of the second floor. I have seen it mount a terraced garden twenty feet above the bank, and crossing the garden enter one of the principal streets of the town. A few years before the erection of the revetment wall, a friend of mine, tempted by the commercial advantages of the position, ventured to build a large cut stone warehouse, 180 feet long and four or five storeys high, closer than usual upon the margin of the harbor. The cellar floor was not more than eight feet above the summer level of the river. At the taking of the ice, the usual rise of the water of course inundated the lower storey, and the whole building becoming surrounded by a frozen sheet, a general expectation was entertained that it would be prostrated by the first movement.

But the proprietor had taken a very simple and effectual precaution to prevent this. Just before the rise of the waters he securely laid against three sides of the building at an angle of less than  $45^{\circ}$ , a number of stout oak logs a few feet asunder. When the movement came the sheet of ice was broken and pushed up the wooden inclined plane thus formed, at the top of which meeting the wall of the building, it was deflected into a vertical position, and fell back.

In this manner such an enormous rampart of ice was in a few minutes placed in front of the warehouse as completely shielded it from all possible danger. In some years the ice has piled up nearly as high as the roof of this building. Another gentleman, encouraged by the security which this warehouse apparently enjoyed, erected one of great strength and equal magnitude on the next water lot, but he omitted to protect it in the same way. The result might have been anticipated. A movement of the ice occurring, the great sheet struck the walls at right angles, and pushed over the building as if it had been a house of cards. Both positions are now secured by the revetment wall.

Several movements of the grand order just mentioned occur before the final setting of the ice, and such is immediately preceded by a sudden rise of the river. Sometimes several days and occasionally but a few hours will intervene between them; and it is fortunate that there is a criterion by which the inhabitants are made aware when the ice may be considered at rest for the season, and when it has therefore become safe for them to cut their winter roads across its rough and pinnacled surface. This is never the case until a longitudinal opening of considerable extent appears in some parts of St. Mary's current. It has embarrassed many to give a satisfactory reason why this rule, derived from the experience of the peasantry, should be depended on. But the explanation is extremely simple. The opening is merely an indication that a free sub-glacial passage has been made for itself by the water, through the combined influence of erosion and temperature, the effect of which, where the current is strongest, has been to wear through to the surface. The formation of this passage shows the cessation of a supply of submerged ice, and a consequent security against any further rise of the river to loosen its covering for any further movement. The opening is thus a true mark of safety. It lasts the whole winter, never freezing over even when the temperature of the air reaches  $30^{\circ}$  below zero of Fahrenheit, and from its first appearance the waters of the inundation gradually subside, escaping through the channel of which it is the index.

The waters seldom, if ever, however, fall so low as to attain their summer level but the subsidence is sufficiently great to demonstrate clearly the prodigious extent to which the ice has been packed, and to show that over great occasional areas it has reached to the very bottom of the river. For it will immediately occur to everyone that when the mass rests on the bottom its height will not be diminished by the



subsidence of the water, and that as this proceeds the ice, according to the thickness which it has in various parts attained, will present various elevations after it has found a resting place beneath, until just so much is left supported by the stream as is sufficient to permit its free escape.

When the subsidence has attained its maximum, the trough of the St. Lawrence therefore exhibits a glacial landscape, undulating into hills and valleys that run in various directions, and while some of the principal mounds stand upon a base of 500 yards in length, by 100 or 200 yards in breadth, they present a height of 10 to 15 feet above the level of those parts still supported on the water.

On the banks of the St. Lawrence, in the neighborhood of Montreal, there is an immense collection of boulders, chiefly from rocks of igneous origin, and among them syenite greatly abounds. They are of all sizes, but many are very large, and multitudes must be tons in weight. From their appearance above the surface in shallow parts of the river, it is very probable the bed of it teems with them also; and it is remarked by the inhabitants that the positions of these boulders, both in the river and on the banks, frequently appear changed after the removal of the ice in the spring.

I spent several days in the autumn of last year examining the boulders along shore, all the way from Montreal to Lachine, a distance of 9 miles; and on again looking at them in the spring I missed some which had particularly attracted my attention, but as I had not mapped their positions I may inadvertently have passed them over. But when we consider the manner in which the ice packs and subsequently moves, it cannot fail to appear a very probable agent in transporting these blocks.

Closely jammed together down to the very bottom of the river over such extensive areas as have been mentioned, and there solidified by severe frosts, around the projecting materials that present themselves to its grasp, the ice must seize a multitude of the loose boulders below; and not only will these be carried away, occasionally to very considerable distances, when it breaks up in the spring, but firmly set in their glacial matrix, they will, when, in the course of the movements that occur, such masses as hold them are forced over shallow places act as graters to register in parallel grooves on the face of such rocks as they encounter a memento of their progress as they pass along.

The boulders in the middle of the river may at once be occasionally carried to considerable distances; but it can scarcely be so with such as are stationed at or near the borders. For though these may become packed and embedded in marginal ice, and by the force of a general movement or shove as it is termed by the inhabitants, be driven obliquely up the bank, as soon as this ceases they will there be left; and as these general movements occur only three or four times during a season, and are never of long continuance, and even where the marginal ice is driven up the bank the friction it suffers soon causes succeeding portions to pile over one another, it is evident the boulders would not be carried by it to any very great distance.

When a break up occurs in the spring, it is the great body of ice in the middle of the river that is carried away, which separating from the grounded portion on the margin, leaves this to be melted down by the increasing temperature of the season. The movements of succeeding winters may push marginal boulders farther and farther on, but they must at the same time have a tendency to carry all within a certain range gradually nearer to the bank, and at last place them in a position at the very limit of their influence. And it is certainly the case that in the neighborhood of Montreal there are in many places along the borders of the river collections of boulders sufficiently great to induce the supposition that their presence may be accounted for in this manner.

It is not, however, only on the immediate banks of the St. Lawrence that boulders abound. They are more or less spread over the whole island of Montreal, and over the plains on the opposite side of the river.

I do not pretend to have ascertained their distribution with the precision necessary to permit the expression of an opinion as to the causes which placed them, but



I may state that they appeared to me more abundant in the upper part of the island than in the lower, and that proceeding down the valley of the St Lawrence they ceased altogether not many miles below the island in question: and it may be further remarked that they did not seem of less weight at the limit of their range than elsewhere.

(Translation.)

Captain CHARLES LEGER, of Lachine, expressed his views as to the mitigation of the floods, as follows:—

In order to understand well what I am going to say to you, you must listen well to me. I have navigated the St. Lawrence and the Ottawa during some thirty years, and I know these rivers thoroughly well. When the wind is south the ice breaks up from about three miles above Isle Dorval to below Lachine. When the wind is north or north-east the ice all breaks up in the large bay of Pointe Claire.

On the 3rd, 4th, 5th, and 6th of January, 1886, the ice was broken up below Isle Dorval, the wind veered round north-east on the evening of the 8th of January, a very strong high wind and then very cold; on the 9th there was a heavy snow storm and then the same wind, and the ice broke up to the large bay of Pointe Claire, and came down on the 10th and the 11th, which was what caused the floods at Montreal.

On the 15th, 16th and 17th January, 1886, the ice coming from Pointe Claire passed Lachine, and caused the water to rise here 15 inches. On the 22nd, 23rd 24th, 25th, 26th and 27th, the frasil coming from Lake St. Louis below the ice, came down the river in front of Lachine in quantity, so much so that the canoe men had difficulty in getting the mail across from one side of the river to the other, the water instead of rising fell a good deal.

I would suggest that ten (10) piers of fifty feet square each and ten feet high be constructed from Isle Dorval to Isle St. Nicolas, a distance of three thousand (3,000) feet in width, under my direction. I would place the piers and the booms below the foot of the shoals there, where there are only two feet of water at low-water, so as to stop the small ice of the autumn until the ice takes of itself, until all the other ice takes at the same time out to the middle of Isle Dorval.

I would leave free the channel for steamboats, rafts, barges and boats, which cannot pass elsewhere than in that channel, which is about 130 feet wide and not more. I would block that channel with a boom so as to stop the small autumn ice.

From the scientific point of view, as to the damages which might be claimed in consequence of the adoption of the plan which I submit, I can say in a positive manner that the water cannot rise or reach more than three feet above the regular level of the river as well for the proprietors as for navigation.

I am going to try to make you understand that my plan cannot retard the opening of navigation. Last year the Lake St. Louis ice came down on the 22nd and 23rd April, and that of Lake St. Francis came down only on the 1st May, 1885, and it is like that every year, and navigation is open only on the 17th of the same month, and navigation opens only when the lights of the lakes are put in place.

The whole undertaking can be carried out for a sum of \$36,000.

his  
CHARLES X LEGER.  
mark

Witnesses—N. THIBAUT, E. CHRISTIN.

P. S.—The construction of these piers and booms cannot in any way hinder the free flow of the waters of the Chateaugay River at its mouth. If at any time you desire fuller information I am ready to give you all the information that you want, whether about Vaudreuil or Isle Perrault.

(Translation.)

MONTREAL, 27th January, 1886.

SIR,—Not having had the advantage the other day of explaining myself in English as I would have liked to have done, I take the liberty to-day of writing you these few words to lay before you humbly my opinion upon the causes of the floods from which you have suffered for a number of years, which may put you in a position to study the question more easily. Now this is my opinion: In the first place you know that for some years past they have been dredging the bottom of the river, and that the earth which is moved finds a resting place somewhere. I, as an old hunter, go to these islands several times every year, and I have remarked that at the entrance of each channel there is a shoal which obstructs the passage of the water. Besides that, there is also the ice of the Longueuil eddy which takes and breaks two or three times before the ice bridge finally takes, and this ice, which is seven or eight inches in thickness, when breaking goes off and grounds in large banks at the entrance of each channel or on other shoals, which, according to me, are formed (the shoals) by the earth which is thrown in near the islets below Longueuil, then each channel being blocked and the shoals being also heaped up with ice, according to my opinion these are the causes of the floods, and it is these mountains of ice which stop the flow of the water, and then the rising water causes all these disasters. I conclude, Mr. Chairman, by submitting my opinion to your consideration, as perhaps it will assist you somewhat.

I am, sir, your obedient servant,  
JOSEPH JANNARD.

The Chairman of the Floods Committee.

(Translation.)

#### THE CAUSE OF THE FLOODS.

I consider that the rise of the water is produced by the accumulation of the ice. In autumn fields of ice from Lakes St. Francis and St. Louis come down the river, for it must be remarked that the ice takes more quickly below than above Montreal, and when these ice floes arrive in the neighborhood of Verchères they meet the solid ice, and being forced on by the water they accumulate to the degree of obstructing the passage of the water, which explains the autumn floods. The floods cease as soon as the ice has taken on Lakes St. Francis and St. Louis.

In the spring the flood is produced by the same causes as in the autumn; the ice from below (? above) comes down the river in fields, which are sometimes from 3 to 4 miles long and even more, and when it meets the solid ice, forced on by the water, it accumulates and blocks the passage of the water which is already obstructed by the autumn ice; hence the floods, the water no longer finding a sufficient passage, rises and soon overflows the banks and causes the damage and havoc which you know.

#### *Means of preventing the Floods.*

Place above the rapids, that is to say at the foot of the lakes, piers from one shore to the other, which should be placed in such a way as not to impede navigation. These piers at the foot of Lakes St. Francis and St. Louis would have the effect of hastening the taking of the ice at these places and would then retain the ice floes coming down, and delay by so much the causes of the autumn floods, and in the spring it would retard the descent of the ice from above and would give time for the ice from below to descend before the ice from above arrived. It is to be understood that if piers were placed in Lake St. Louis only, the same results would probably be had, but the consequence would be the inundation of Beauharnois and neighboring places; but by thus putting piers at the foot of Lake St. Francis there is no fear of floods; and it will be understood that the amount of ice which will come down will be considerably less.



Moreover, make a canal at St. Lambert 300 feet wide going as far as Longueuil or lower down, giving it all the depth possible while keeping a strong enough fall, and in such a way that the water being let into the canal would exercise a pressure on the ice; and at the head of this canal make a basin of 300 by 600 feet; put twelve gates of 10 feet each in it to communicate with the canal; this basin should be so constructed that there should be no current at this place, it should be dead water in order that the ice may take there earlier than elsewhere, and then that the ice coming down should not enter this basin. In the spring when the time of the breaking up of the ice comes, these gates would be opened, and the water descending this canal as far as Longueuil would go to force the ice on and hasten its departure before the ice from above came down.

The whole humbly submitted.

CYRIAC LABELLE.

363 Workman Street, St. Canégonde.

*To His Worship the Mayor and the Aldermen of the City of Montreal.*

The memorial of the Council of the Montreal Board of Trade respectfully sheweth:

That the Council of the Montreal Board of Trade having carefully considered the matter of the periodical inundations of the lower districts of the city, desires earnestly to recommend that the civic authorities do, without loss of time, make a vigorous effort to establish the causes of, and find a remedy for, these recurring calamities.

That the importance of the subject is too obvious to render argument necessary, and it is needful only to point out that, as a matter of fact, the river never rises above a certain level without causing a considerable money loss from the destruction or damage to merchandize, while this loss, great as it is, is of less moment than the misery caused to large numbers of people who reside in the district so flooded.

That in addition to these obvious evils, the first effect of the rise of the river being to reverse the flow in all the drains and sewers, all the cellars and streets in these districts are saturated with sewage, and therefore that in parts of the city where no outward effects of the flood are apparent, sewage gas must, as a matter of course, be forced into the dwellings with consequences to the public health which cannot be over-stated.

That the Council of the Board of Trade, while desirous of avoiding all intrusion on the province of the civic authorities, conceives it to be necessary to make a specific statement of the course it is prepared to recommend as follows:—

The enquiry now being conducted by a special committee ought to be continued; the fullest powers be given to such committee, and a liberal appropriation of money made so that the best engineering and professional talent may be engaged to make the necessary surveys.

It should be the duty of those engineers to report fully on the causes of these floods, and to present a specific plan or plans for their prevention, with estimates of outlay.

The date at which such report is to be made should be now fixed, though it might be hereafter extended if requisite.

It is obviously necessary that no time should be lost, as the river in its winter condition can now be examined and surveyed, and, in addition, it is hoped that some steps may at once be found practicable to prevent, or at least to mitigate, the effects of the spring flood which many consider probable.

That the Council of the Board of Trade believes that the civic authorities will carry with them the approval of the mercantile and manufacturing community, and of the citizens generally, in dealing with this question in a vigorous and liberal spirit.

That it having transpired that the representative of the Board of Trade on the Inundation Committee is absent from the city, the council have this day nominated



R. Paton McLea, Esq., in his place, and desires further to say that its members are prepared to aid the proposed enquiry in every way in their power.

The whole respectfully submitted.

GEORGE A. DRUMMOND, *President*.

WILLIAM J. PATTERSON, *Secretary*.

Signed on behalf of the Council of the Montreal Board of Trade.

MONTREAL, 18th January, 1886.

# METEOROLOGICAL OBSERVATIONS BY CAPTAIN CHARLES LEGER.

Observations on the changes of the weather, wind and level of the water as noted by Charles Leger at Lachine since the 16th of December, 1884, viz.:

Dec. 16th.—All the rivers were frozen in the morning, the same night very cold.

Dec. 17th, 18th, 19th and 20th very cold, with north-east wind and snow.

Dec. 21st.—All the rivers were frozen over and people were crossing the same on foot excepting within three miles of the town of Lachine (to Ile Dorval) which is always open.

On the same day (the 21st) the wind changed to south-west and blew a gale all day and the ice on Lake St. Louis did not budge; the weather kept cold until the 27th; from the 28th until 13th January the weather has been very mild, with a great deal of rain about every other day with winds from the east and south the greatest part of the time, which caused the ice along the Lachine shore up to the Island Dorval to break close up to the beach, the frasil ice floated to the surface and moved down the river with the broken ice which caused the water to rise some in Montreal. If the piers were built at Lachine the river would all freeze over from the piers to Ile Dorval and would thus prevent the making of frasil ice and would also keep the ice there, instead of drifting down the river to Montreal and cause a jam and rise of water there.

Every year the ice takes by a cold north-east wind, from Beauharnois to Lachine with the exception of the three miles above mentioned.

Before the year 1875, the four gates of the Lachine lock used to remain open from about the 15th of June till the 15th September, with only about 6 inches of fall between Beauharnois and Cote St. Paul locks.

Since the building of the new canal dam the water at the head of the pier is one foot higher than it was before. From what information I can gather from the inhabitants should the piers cause the water to rise during the winter season it would cause no inundation, even 4 feet, in the vicinity of Lachine.

Respectfully submitted by

CHAS. LEGER, *Light Pier Keeper, Lachine*.

LACHINE, 14th January, 1885.

To the Inundation Committee, Montreal.

MONTREAL, 18th May, 1886.

A. A. STEVENSON, Esq., Chairman Committee on Floods:

This is as near as I can remember the name of the Committee.

A few days ago you were good enough to say you were willing to read a letter of mine in reference to our annual floods, and how to prevent, or, at least, mitigate them.

In pursuance of that desire, I beg to say that I have had a map of Montreal and vicinity before me for a year, and the more I look at it, the more I feel satisfied that three things, if done, would greatly conduce to this desirable object in view:

1st. Moffatt's Island and the pier thence to St. Lambert shore, should be removed.

2nd. The channel south of the St. Helen's Island should be deepened. In this I find a correspondent of the *Gazette*, Mr. Sorby, agrees in a letter he wrote some days ago.

3rd. Isle Ronde should be partly or entirely removed.

By these acts, I would expect to make a direct course for the ice on either side of St. Helen's Island, and thus relieve the pressure upon the wharves.

So much for the city itself. Now, with regard to Point St. Charles, or further up, the difficulty is not so easy to solve, because of the formation of Laprairie Bay.

When the lake ice comes down it naturally pushes towards Laprairie, where we find as it were a large mouth with closed teeth (the piers of Victoria Bridge) holding it back just at the entrance to a comparatively narrow place, thus preventing the larger mass of ice, which is collected at breaking up time, from freely passing down.

The Victoria Bridge I hold to be in a bad spot for our bi-yearly welfare. However there it is and to stay, therefore we must fight around it for success.

Before closing, I might venture a suggestion or two for what they are worth. That old pier which runs out into the river nearly parallel with Victoria Bridge, ought to be removed or built over so as to point down the river, instead of nearly across, as at present.

And finally taking a jump down to Point aux Trembles and the islands that crowd the channel on the south of Isle St. Thérèse, it occurs to me that the removal of some of them would make a clearer course for the moving ice, and thus greatly conduce to the end in view.

I don't indulge the idea that I have made any discoveries that are new, and fear that some of my suggestions, if deemed good, would involve too serious an outlay for our purse, but I venture to express my views to show you that I am in deep sympathy with the highly important object for which your committee is organized.

I remain, sir, your obedient servant,

R. TURNBULL.

MONTREAL, 29th May, 1841.

SIR,—I have the honor to forward herewith a report, with plans and estimate of the probable expense of relieving St. Ann's suburbs of this city, as far as the levels permit, from the periodical inundation.

We have as closely as possible adhered to the instructions of His Excellency, and although the members of the commission, as appointed by His Excellency the Governor General, have not been able to meet together lately, yet as the outlines of the plan were agreed on and put in writing at their last meeting, and as from the first there was no difference of opinion as to the principles on which the plan of relief should be founded, we trust that His Excellency will be convinced that the best endeavors of all the members have been used to further the end in view.

I have the honor to be, sir, your most obedient humble servant,

P. COLE, *Major Royal Engineers.*

T. W. C. MURDOCK, Esq., Civil Secretary, &c., &c.

REPORT ON THE CAUSES OF THE PERIODICAL INUNDATION OF PART OF THE CITY OF MONTREAL CALLED GRIFFINTOWN OR ST. ANN'S SUBURBS, ON THE POSSIBILITY OF REMOVING THOSE CAUSES OR OF OBTAINING THEIR EFFECTS.

MONTREAL, 29th May, 1841.

In pursuance of the commands of His Excellency the Governor General as conveyed in the Civil Secretary's letter of the 15th January last, relative to the periodical inundations in the St. Ann's suburbs of this city, the commission appointed by His Excellency have the honor to submit the result of their enquiries and examinations, with plans, sections and estimate founded thereon of the probable expense of protecting the city from this calamity.

The subject naturally divides itself into several principal sections.

#### *Division of the Subject.*

1. The rise of water in Montreal harbor at the end of December, or beginning of January of each year, and on the breaking up of the ice in the spring.



The natural and artificial causes leading towards this result, and the consequent flooding of Griffintown.

The possibility of removing those causes or of obviating their effects.

*Rise of St. Pierre River.*

2. The rise of water in St. Pierre River and its effects on the inundation of the city and neighborhood with the means of preventing the evil.

*Sewers and Drains.*

3. The sewers, drains and their course by which the backwater of the St. Lawrence is admitted into the city before the overflow of the banks and upper quays.

*Streams within the City.*

4. The small streams which usually fall into the St. Lawrence within the precincts of the city, and the means of guarding against their overflow when the usual course is stopped during the inundation.

*Rise in Harbor.*

First. The rise of water in the harbor is obviously caused by the accumulations of ice from the rapids above, which, being stopped by the field ice below, is forced under it from the pressure above until it grounds on the shoals in and below the harbor, and being confined by the narrow channels on each side of the island of St. Helen, forms a succession of dams as far as the head of the island and the new market, from whence the inundation was on a level this winter as far as the canal; and from the information we have obtained it appears that the deviation in other years is not material.

The great body of ice in the centre of the river, when arrested in its course, shoves not only downwards but sideways towards the shores, and even backwards when out of the current, as below Windmill Point.

*Ice Dams.*

It then grounds, shoals and forms accumulations which, in some instances, have done damage to the houses along the quays.

The accumulations on the shoals and wharves at and above the new market being nearly parallel to the shore, do not, in our opinion, materially affect the rise of water in the river.

The communications from intelligent and observing residents who have favored us by their written or personal communications, show that the accumulations vary in extent and situation. That the relative height of water in different years corresponds with the alternations of frost and thaw before the ice becomes fixed, and that, when the frost is very steady at this period, a comparatively small rise of water may be expected, probably from the small quantity of floating ice which comes down the river.

*Causes of unequal rise of Water in different Years.*

It is also generally observed that when the ice passes down the east channel without choking or "shoving" that there is no excessive rise of water in the harbor, and also that if this channel be choked, as well as the western one, that the greatest rise is to be apprehended, as was the case this winter, the "air hole" or vent being below St. Helen's.

*Effect of the Wharves on the Inundation.*

These facts, connected with the parallel situation of the accumulations to the shore and the uniform level of the inundation above the new market, apparently prove that the wharves have no effect on the inundation. The proportion to the breadth of the river is very trifling.



*Rise in Former Years.*

This view is corroborated by several intelligent correspondents, who vouch from personal observation that the water has risen to a greater height before these improvements were made, and, in particular, about 50 years ago, when the water covered the whole of the southern part of St. Paul Street. Several years after this, the lower floors of the Grey Nunnery were inundated to a great depth. In the winter of 1809-10 the water rose high enough to flat timber over Grey Nun Street.

In later years the greatest rise was that of 1837-38, when the water rose about one foot higher than the present year. That in 1839-40, although higher than usual, was two feet lower than that of this year.

*Duration of Flood.*

The duration of the highest winter flood varies. It generally does not exceed two days, as was the case this year, and the preceding, but in 1837-38, which was a very mild winter, the flood was very high, though perhaps not at its highest, during 14 days. Some relief may however be expected in less than 24 hours. The city is always more or less affected by it, in the cellars for several weeks.

*Height of Flood above Lowest Water.*

The greatest flood is about 20 feet above summer level in the harbor, and about 12 feet difference at St. Mary's rapid between two periods at that place.

*Spring Flood.*

The spring flood is lower and of less duration as the ice is then unequal to support a great head of water, but from the great body of floating ice more damage has been occasioned by the latter to the houses bordering the quays at this season than by the water.

The most remarkable effect of ice was in 1792 or '93, and in 1832 the water rose to the height of the present quay wall.

The temperature has also an effect on the spring flood, and southerly winds by detaching large portions of ice, increase the accumulations or the flood by the accompanying rain.

If the river is open at the current St. Mary, the rise of water is not to be dreaded in the spring.

From the foregoing facts and the levels taken for the commissioners, and from the coincidence of the accumulations with the narrows and shoals at and below the head of the island and the new market, we are of opinion that the obstructions affecting the inundation commence at those points, and continue downwards on both sides of the island until the river opens below it.

As before stated, there is no very high flood if the channel is open on either side of St. Helen's, which appears to prove that there is always a passage below sufficient to relieve the town.

*St. Pierre River.*

Secondly.—Dams of ice similar to those before mentioned are formed above the harbor, and in the channel inside of Nun's Island, which raise the water above them and back it up to the St. Pierre River until it overflows its banks, when it flows in a rapid stream downwards on the east side of the canal, and through the culvert at St. Gabriel's farm to the west side. This rise is simultaneous with that of the back water in the harbor, and meets the latter flowing southwards about the St. Gabriel's farm. Its level is about two feet above the harbor backwater, and has therefore much increased the mischief caused by the inundation. It has flowed over the canal bank in several years, and in 1837-8 to a depth of  $4\frac{1}{2}$  inches, and probably caused the very great flood of that year in Griffintown.

The backwater did not, in the present year, flow up the St. Pierre, beyond the culvert under the level near Mr. Gregory's. Should it do so in other years, it would

be diverted on that side from the city by a ridge running from Mr. Gregory's westwards across the upper Lachine road to the Côte. This is the dividing ridge between the water of the Holwell Creek and that of the rivulet, flowing through the Tanneries to St. Pierre.

It has been proposed to embank the St. Pierre, to prevent its overflowing on the east side of canal, but this work, by preventing the relief afforded by the overflow, might back up the water to a greater height along the banks of the St. Lawrence above the St. Pierre, and up the valley of the latter.

As the farms on the east of canal are not injured by the inundation, and do not come within our instructions, we avoid tampering with the natural course of the water.

#### *Drains and Sewers, &c.*

Thirdly. The backwater rises in the cellars of the houses within its sphere, nearly as fast as in the harbor, through the St. Ann's Creek and other drains, and also by quicksands or gravel below the level of the quay wall. The remedies we shall afterwards submit.

#### *Quicksands.*

The influence of the quicksand is probably much less than is generally supposed. If it cannot be cut off, it will at least require small means to carry it off.

#### *Streams within the City,*

Fourthly. The streams falling into the St. Lawrence, within the precincts of the city, contribute to the inundation, and the mode of remedy requires consideration.

#### *Holwell Creek.*

The Holwell Creek is merely the drain of a marsh, on the west of Upper Lachine road, as far as the ridge before mentioned on the city side of the Tanneries. It is joined near the brewery of Messrs Dow & Dow by an offset from the St. Pierre, passing through the St. Gabriel culvert.

The latter stream can be confined to the east side of canal during an inundation. The Holwell Creek discharges at Point à Callière.

#### *Mountain Streams.*

There is another stream which descends from the Cote à Barron and crosses Bleury Street near the upper end. On arriving at a swamp at the head of St. Lawrence suburb, it passes by a water course into the Craig Street tunnel, which meets the Holwell creek before its discharge at Point à Callière. This stream will be hereafter adverted to.

#### *Remedial Plans Proposed by Individuals.*

Several plans have been proposed by individuals for prevention of the rise of water in the harbor.

#### *Excavation in the bed of the River.*

The most obvious remedy is to deepen the shoals in the west channel, and to lower the small island at the foot of St. Helens to about three feet below summer level. The expense attending this plan would be very great, the effect uncertain, as it would afford very little additional relief to the channel which is 37 feet deep at low water. The effect anticipated is that it would afford scope for the escape of the ice below without forming dams.

In the summer it would have the injurious effect of lowering the water in the harbor, but, on the other hand, it would diminish the rapid of St. Mary by lowering the head, and allowing the water to spread.

Another objection to this plan is that it would require several seasons to complete it. Although it is not recommended by the commissioners for the present time and



purpose it may deserve attention at a future time, as an auxiliary means of relief, keeping always in view the effect it would have on the harbor. The shoals above the head of the current St. Mary may be removed without risk.

*Proposed Mole and its Probable Effects.*

It has been proposed and supported by several persons whose opinions are worthy of the greatest consideration, that a mole should be thrown out, either continuous or in detached piers, from Windmill Point on the shoals towards St. Helen's or from a point higher up the river.

Two effects are anticipated by the movers of this plan. First, that by creating dead water above it, the ice would take sooner and arrest the floating ice at a higher level and thus prevent the formation of ice dams below the harbor. Secondly, that if the mole were formed in piers, it would break the ice in small pieces, which it is expected would not form into accumulations.

The first expectation is, however, problematical, and the second superfluous, because the greater part of the ice is broken small by the rapids, particularly that which comes down immediately before the ice is fixed, and which is equally arrested by the ice below.

It was at first overlooked that the mole, if continuous would occupy about one-third of the breadth of the river, and then the water thus backed up would very much increase the rapidity of the steamboat channel in the summer, and the only bateau channel would be blocked up.

At the commencement of the winter, the ice would be arrested, either in fields or masses, above the mole and would flood lands above the rapids which are now exempt. The water which in some seasons has flowed over the canal a few inches in depth would then be precipitated over in a torrent unless the banks were raised to a height which we cannot estimate, and would create evils far more fearful than those it is proposed to avoid.

*Effects of Proposed Mole.*

If, instead of a continuous mole, piers were placed at intervals, the evils to be dreaded would certainly occur in proportion to the shortness of the intervals, but it is not so certain that the good effects anticipated would actually ensue.

The Commission do not therefore propose any work of this kind, but it may be a matter of future consideration as an auxiliary plan, whether a few piers may not be placed at a time, to ascertain the effect produced, and allowing several winters to elapse before further additions were made, to give a full trial of the effect.

We feel ourselves called on to dwell on the necessity of the greatest caution in attempting to cope with, or even to direct so powerful an agent.

The conflicting opinions which have been brought forward with respect to the remedy for this evil show that the subject is involved in considerable difficulty. It is indeed of a more than usually complicated nature.

COTE DES NEIGES, MONTREAL, 25th January, 1886.

To the Chairman of the Inundation Committee:

SIR,—I have the honor to forward you a printed copy of my letter, sent to the Montreal *Herald* on Friday last. Should you desire the plans and estimated cost of improvements, there described, I shall be pleased to prepare same for your perusal. The cost would be only very trifling.

Yours truly,

F. G. GILMAN.

HOW TO STOP THE INUNDATIONS.

To the Editor of the *Herald*:

SIR,—On the 13th of April I wrote to the newspapers in reference to these floods, pointing out the means employed near Penzance, in Cornwall, England, to



prevent the sea overflowing some 500 acres of land that is 8 feet below high water mark. I have myself seen storm waves run 20 feet high up the dyke without any water coming up the trapped culvert.

I have since studied this matter and find that the floods are caused by an ice bridge first taken below the city when the water is low and comparatively still. Then when a thaw in the west causes a vastly increased volume of water to come down the St. Lawrence, the softer weather, coupled with the accelerated force derived from falling down the rapids, breaks up the thin ice near Victoria Bridge. This increased volume of water cannot escape under the ice bridge previously formed below the city, as it is firmly frozen at the lower levels, until it has lifted the whole surface, which it does gradually beginning at the upper end, the floating ice passing under same and gradually raising the whole sheet. This, in my opinion, would account for a spring flood.

A winter flood is from a combination of causes. The ice that has, owing to a thaw, passed under and commenced to raise the upper end of the bridge becomes frozen, making an effectual trap to catch and retain all frail that floats down. By this means the barrier is increased and the water channel contracted until the flood has risen until the water is of sufficient weight to break the barrier through.

Now, sir, for the remedy. I have one that will put an end to these floods, that will make your mighty river keep its bounds for ever, and will cost the city comparatively nothing.

Some gentlemen have advised building piers above the rapids, but it is the ice from below the rapids that first causes the trouble. The impetus given the water by the fall prevents said ice forming so thick as that lower down the river. Other gentlemen advise removing certain shoals, Isle Ronde, &c.

Now, sir, if this were done what depth of water would you have in the ship's channel during summer shallows? But the gentleman who suggested removing St. Helen's Island, could perhaps devise means to replace it by the opening of navigation.

In my opinion every sewer will have to be run into the Craig Street tunnel. A separate tunnel could be made to run parallel with the river, a few feet inside the revetment wall, and by this means drain Griffintown, Point St. Charles, &c., in fact all sewers that now empty into the St. Lawrence, said tunnel to be connected at the lower end with the existing Craig Street tunnel and the whole carried to a point below the ice barrier previously referred to.

It has been proved that the waters do not rise high a few miles below the city, so if the sewers emptied there it would be impossible for flood waters to back up into any store, street, or even cellar.

Then the revetment wall would have to be rebuilt (it wants doing anyways) and raised three feet higher; the whole foot path might be raised, making a wall twelve feet wide, and so protected on the river side that people will not break their necks falling over it. The wall would need raising from Bonsecours market west, and continued up the bank of the river for about a mile above the bridge with an earthen embankment, the earth for which purpose could be brought on tramways from near the aqueduct and also partly from the dredgings of the river.

Now for the means. If instead of keeping prisoners idle, or, what is worse, employing prison labor to make cheap though comparatively useless articles, tin trinkets, &c., and thereby injuring the trade of the city, they were employed in constructing such works as the above, it would confer an immense benefit upon the honest poor who are now flooded out, and cost, as I said before, comparatively nothing.

In foreign countries work of this kind is done by pri-oners. In France, I have read, the cornice road from Marseilles to Genoa, some 160 miles, built through rock the greatest part of the way, was done almost entirely by prisoners from Toulon under the first Napoleon. In England I have myself many times seen a gang of prisoners at work building the Weymouth breakwater. It is an immense structure, about five miles long, and would cost many millions of pounds, but for utilising that which is in Montreal a "latent power."

Yours truly, F. G. GILMAN.

146 ST. JAMES STREET, MONTREAL, 19th January, 1886.

SIR,—At the request of Mr. George Drummond, I beg to lay before you some points in connection with my scheme for relieving the city from floods, which was published in the *Star* last week. These points are as follows:—

Firstly.—The still water harbor mentioned as being possible after our drains had been all diverted into the Craig Street tunnel, was only referred to as an improvement which might be carried out; it forms no part of the project for avoiding the floods.

Secondly.—The extension of the Craig Street tunnel down to the Ruisseau Migeon is in any case very desirable, for during very high water the drainage has no proper outlet, but keeps floating about under the city with the water in the river, and not only generating gases which must be very injurious to the health of the city, but also depositing large quantities of solid matter in the drains.

Thirdly.—If the drainage of St. Gabriel was all brought under the canal to join the extension of Craig Street tunnel, a splendid opportunity would be afforded of flushing the tunnel with water from the canal.

Fourthly.—The extension of the Craig Street tunnel will be required at no very distant date in any case.

Fifthly.—After diverting the drains from the harbor, we should have no more complaints about the polluted water along the river front.

Sixthly.—From remarks I have heard, I would wish to explain how I propose to deal with the drainage during floods. I propose, when necessary, to shut off the connections between the main drain and the river at the Ruisseau Migeon, and either pump it over the sluices into the river through a long pipe supported by stays, or through a pipe carried along the bed of the river to some point out of the way of navigation, and protected at its extremity with a crib-work, or else let the drainage flow into a reservoir during the floods, and let it flow out when the water falls sufficiently; on these last points I have no data which would enable me to form an opinion as to which would be the best method.

Seventhly.—The cost of the scheme I propose can be definitely ascertained, and its success is certain, whereas in dealing with the river, unless St. Helen's Island be removed, which is quite out of the question, no one can tell what the success would be; under certain conditions a flood could be avoided, but under others the water is certain to rise.

Eighthly.—To raise the level of the streets would only give a small measure of relief, as the cellars and yards would still have to be filled and the houses raised—it being remembered that cellars are very necessary to store provisions in.

Ninthly.—Since writing to Mr. Drummond, I have seen the report of the Royal Engineers on the question at issue, and, taking into consideration the changes in the city, their proposal seems almost the same as mine.

Tenthly.—The scheme I propose would not only relieve the city from floods, but also give a perfect system of drainage.

Finally.—I wrote the letter published in the *Star* simply as a citizen who has an interest in the welfare of the city of Montreal.

I have not as has been estimated any "axe to grind" in the matter, as I have not yet found surveying in Montreal sufficiently profitable to be able to invest in flooded cellars in St. Paul Street, nor do I expect to derive any professional benefit from my scheme, as the works, if carried out, would be under control of the city surveyor; and, in fact, any investigation into the condition of the river would be more likely to be profitable, as Mr. Rielle might be called on to furnish a copy of the large plan which he has of the River St. Lawrence on a scale of 200 feet to the inch, and which comprises that part of the river lying between Lachine and the Boucherville Islands, showing the contours of the ground, the level of the water at various points, and well established bench marks along each side.

Your obedient servant,

H. IRWIN.

ALDERMAN STEVENSON, Chairman of the Inundation Committee.



146 ST. JAMES STREET, 4th February, 1886.

SIR,—Allow me to call your attention to one point in the published account of Mr. St. George's report, which, I think, requires explanation.

Mr. St. George cites the fact that the Worthington engine can only deliver 8,000,000 gallons per day, as proof of the impracticability of pumping the sewerage in time of floods.

Mr. St. George seems to have overlooked the fact that the 8,000,000 gallons are to be raised some 200 feet, whereas the sewerage at the Ruisseau Migeon outlet would only have to be lifted some 16 feet.

It follows from this that an engine of the same horse power as the Worthington could deal with 100,000,000 gallons of sewerage at the point stated above.

Besides an engine could, owing to improvements, be now bought at the same price as the Worthington, we should have an engine able to pump 125,000,000 gallons per 24 hours.

Again, the Worthington type is by no means the most suitable for low lifts. In the *Scientific American* supplement for 9th August, 1884, you will see an account of a centrifugal pump (for emptying the caissons of a floating dock), which has a capacity of some 208,800,000 gallons for 24 hours.

With regard to the water from the upper part of the city, I had no idea that it discharged into the Craig Street tunnel. I was under the impression that it was conducted along a higher level drain, and emptied into the Colborne Avenue tunnel.

In this, as in most other matters relating to the scheme I proposed, I could propose no details, as I am unable to get at the necessary data. Surely no sane engineer would propose to pump the drainage of the higher parts of the city into the river.

If Mr. St. George would inform Messrs. R. H. Buchanan & Co. of the quantity of water to be pumped per 24 hours, and the height to which it would have to be raised, I have no doubt they would give you an approximate tender on very short notice.

I do not propose to trouble you any more on this subject, as I think I have succeeded in turning the attention of the authorities from the idea of dealing with the river to the more practicable and less costly scheme of keeping the water out of the sewers and raising the banks where necessary.

This was the object I had in view in writing my letter of 12th January last.

Your obedient servant,

H. IRWIN.

ALDERMAN STEVENSON, Chairman Inundation Committee.

OVID M. GOULD, Esq., testified as follows:—

I called here to draw the attention of the Committee to the fact that the City Surveyor has been taking levels of the river, and in conversation with him he stated that he was not authorized to make a very extensive survey.

The levels which have been already taken go to show that the dam which causes the flooding of the city now seems to be located somewhere between Isle Ronde and Victoria Bridge.

I suggested to the City Surveyor that it might be possible to blow it up with dynamite as an experiment which might not be so costly after all.

I would suggest that this Committee recommend to Council that the City Surveyor be authorized to make a more extensive survey, and if, after such survey, in his opinion it should seem feasible to blow up the ice jam with dynamite, or any explosive, as an experiment, that he be instructed to make the attempt, and so ascertain if the obstructions could not be removed.

I think that the flooding of Point St. Charles was caused by the water backing up through the sewers.

OVID M. GOULD.



Ex-Alderman TANSEY appeared before the Committee and testified as follows:—

On William and Kennedy Streets, I remember that in 1847, the water rose to a certain height, and I was compelled to drive in a cart to go to school. This winter I know that the very house in which I lived in 1847, is flooded to a height never attained during the time I occupied it, on account of the raising of the streets in that locality. This shows clearly that the water rose to a higher point now than it did in those times, but the raising of the streets showed it only six inches in some places where it was three feet in those days. I am of opinion that the streets of St. Ann's Ward should be raised. It would cost a great deal to raise the level of the streets, and it would be a step in the right direction towards mitigating the frequent occurrence of the floods; scrapings from the streets of the city and stone taken from the excavation for the laying of water pipes in St. Jean Baptiste Ward could be used to do this work, and tenants could be requested to keep their cinders apart and the same could be used for that purpose.

The revetment wall is tumbling down and some repairs should be made to it;—water above McGee's bridge is twelve feet higher than the level of Point St. Charles, and we are not flooded from it, for the simple reason that the embankment is sufficiently strong and high to prevent the water from overflowing the bank. And now, for a remedy against the frequent floods at Point St. Charles. I would suggest that the present bank of the tail race on the north east side be raised at least three feet, commencing at the wheel house, thence to the river, and then extend it to Victoria Bridge and from there to Mill Street, and then place a sluice gate at the outlet of the tunnel at that point which could be regulated to close or open by the rise or fall of the water, then to place a pumping engine or a turbine wheel to pump the sewage over into the bank into the river if necessary. The same plan could be adopted for the other outlets in the city.

The Harbor Commissioners should raise the revetment wall from Black's bridge, to the Canadian Pacific Railway depot or thereabouts.

*Alderman Laurent:* If the streets are raised, will not the proprietors claim damages?

In answer to this question, I say that, as far as I am concerned, personally, I shall not claim damages, and I would prefer to step out on a macadamized street than to have to step into the water.

I would further recommend that the levels of the water at present be taken, and that the streets should be raised according to the present level of the water only. By doing so there could be very few houses that would require to be raised; some could be raised bodily, and more could be raised by placing an extra joist of 10 or 12 inches on the first floor.

I would recommend also legislation to protect the city against damages caused in consequence of the raising of the streets, also to exempt proprietors and others from any expense in consequence thereby.

I am of opinion that prompt action should at once be taken; I do not approve of any expense for surveys being made, as I consider that the corporation possesses sufficient engineering skill to carry out the scheme as far as the city is concerned.

D. TANSEY.

Point St. Charles.

Mr. THOMAS WEBB, of the city of Montreal, testified as follows:—

I have resided in St. Ann's Ward for over thirty years; we have had water almost during the whole of that period. There have been numbers of plans got up to prevent the rise of water in that ward, but they never succeeded so far. I took the trouble of visiting this year's flood, being well acquainted with every inch of the flooded district, and I saw that a great improvement had been made by raising the streets. When I was a boy, I lived near William, where I saw eight feet of water various times; this year I find quite dry and free of water. In the premises that I occupied, with this year's flood we would have had about  $4\frac{1}{2}$  feet. At present there are but 10 inches in the premises.

Our city drains into the river; therefore, the water returns by the same way it goes. Anchor ice gets in under the ice, and chokes up the channel.

If you have a survey of the river made between Montreal and Bout de l'Île, you will find that there are three different levels. There are large shoals opposite the Hudon cotton factory, and anchor ice generally settles there.

If Isle Ronde were removed, as has been suggested, Longueuil would undoubtedly greatly suffer by it.

Our first trouble commences at Bout de l'Île. If the river is low in the fall, we are sure of high water, as the river here is encumbered with small islands, and the channel is crooked. Three nights' frost causes the ice to form sufficiently strong to cross; then the drift ice commences to choke the stream; then at Longue Pointe another rise by the anchor ice at the Hudon cotton factory by the long shoals, causes the water to overflow the city. To remove the islands, Isle Ronde and St. Helen would do no good. They talk of abutments of use in the river; there were 4 or 5 built where the bridge crosses, by the advice of some engineers, to retain the ice in the Laprairie Bay. They proved to be an expense and for no purpose, so they were broken up and carried away by the ice; that proved their great service.

I would say, remove those small islands below Boucherville Island, that would give more room to form a greater passage and prevent the choke here; then if the river is high in the fall we are not in so much danger of being troubled, as the very passage is increased thereby.

THOMAS WEBB.

196 St. Antoine Street.

COTE DES NEIGES, MONTREAL, 20th January, 1886.

ALDERMAN STEVENSON.

SIR,—I understood that a meeting of the Inundation Committee would be held in the City Hall on Tuesday last at 3 p.m.

Under that impression I wrote the letter left at your house on Tuesday night, intended to have read same myself, and made certain corrections that it seemed unnecessary to write down. The most pertinent that occurs to me just now is after the words "Craig Street tunnel" I should have said: A separate tunnel could be made to run parallel with the river a few feet inside the revetment wall, and by this means drain Point St. Charles, Griffintown, &c., in fact, all sewers that now empty into the St. Lawrence—said tunnel to be connected at the lower end with the existing Craig Street tunnel, and the whole carried to a point below the ice barrier previously referred to.

Yours truly,

F. G. GILMAN.

GUARDING AGAINST FLOODS.

MONTREAL, 28th April, 1885.

To the Editor of the *Herald*:

SIR,—Surely it is possible in future to prevent the disastrous floods in the low-lying parts of this city

Near Penzance, England, there is a tract of land, some 500 acres in extent close to the sea, that is never flooded, although it is some 8 feet below high tide, a reservoir of about an acre holds all the surface water from this land; it is separated from the sea by a high bank; at low tide the water is drained off by two culverts, about 2 feet in diameter; each culvert is laid in cement and slightly sloped at the mouth; a piece of leather, strengthened on the outer side by sheet iron, is hung over said mouth of culvert forming a valve which effectually prevents any water returning, no matter how high and rough the sea. These drains are very simple, would last many years, and ought not to cost more than one flood does.

Yours truly,

F. G. GILMAN.



## INUNDATION MATTERS.

To the Editor of the *Herald* :

I am gratified to learn through your columns that the city fathers are beginning to see the utility of my scheme for preventing the inundations. On the 13th of April last I wrote describing the means adopted to prevent inundations in other countries. On 18th January I forwarded supplements of same to the chairman of the Inundation Committee, a copy of which appeared in your issue of 25th January, suggesting that, as the floods were caused by an ice barrier forming below the city, it was advisable to rebuild the revetment wall or put another wall on the river side of same, commencing the foundation say ten feet outside the existing wall, and sloping the new wall inwards, so that it would come within six feet of the whole wall at the top of the same, the space between walls to be cemented with puddled clay; the new wall could be raised three or four feet higher than the old one, with ridged coping stones at the top of the same, coming to a sharp edge to prevent children walking on top. There would then be a protection for pedestrians in winter as well as summer. This sloping wall would have a tendency to raise the ice when shoving against it, and so relieve said wall of part of the pressure.

I further suggest that a new tunnel should be made to run parallel with the river, intercepting all present outlets, running from Point St. Charles along the centre of Mill Street, under the canal above the first lock, along Common and Commissioner Streets, joining the Craig Street tunnel at the lower end, and the whole to be carried to a point below St. Mary's current.

We should then require no pumping engines, as if the tunnel were carried far out into the deep water, it would be impossible for ice to clog it, and the "fall" through Hochelaga is sufficient to clear it at all times, thus saving an annual expense in attendance, fuel and repairs of a very large amount. Also that an earthen embankment be continued from the end of the revetment wall to all points from which the river has been known to flood the city, probably as high up as the River St. Pierre.

I have not been to any meetings of the Inundation Committee myself since Saturday week, as my prediction that the natural heat of the soil, acting on the proposed frozen sawdust bank, would allow the water to get underneath and float it away unless it was bolted down and clinched somewhere on the other side of the world, apparently gave offence.

In conclusion, I must apologize for not answering "Probs'" letter that appeared in your columns one day last week. I have not seen the paper he refers to. However, I seldom pay any attention to letters unless signed by the author.

Yours truly,  
F. G. GILMAN.

773 Craig Street, 8th February, 1886.

128 PRINCE STREET, CITY, 16th January, 1886.

To the Special Committee on Inundations :

GENTLEMEN,—In the *Star* of 15th January you invite schemes or suggestions to relieve the city from the floods; and as I believe they can be effectually prevented I respectfully append herewith my ideas on the subject, which, if adopted, will prevent floods :

First. Take the level of the river as required for business purposes in the summer time. Then take the highest level the ice reaches in flood time—both levels between the town and St. Helen's Island. Next get a chart of the river bottom between the town and St. Helen's Island. You will then be able to join an estimate as to the extra amount of space required to allow the water to pass without jamming a block at flood time. You can then get space required for the flow of water by either deepening the river, taking away St. Helen's Island altogether, or only so much of it as would be requisite for the flood water. Removing part or all of St.



Helen's Island would be the least expensive, as you could employ prison labor for the greater part of the work.

I am, gentlemen, yours respectfully,

JOHN ARCHER.

GEOGRAPHICAL SOCIETY, QUEBEC, 27th March, 1886.

To the Editor of *The Star*.

SIR,—I wish to draw your attention to the state of the waters of the St. Lawrence, which enables mariners to sail from the Louise Dock, Quebec, to Cape Ray, Newfoundland, and so pass into the ocean. The Gulf of St. Lawrence is always navigable in spring until the bay ice gets into the current, and so blocks its entrance with field ice; between Cape Ray and Bird Rocks this generally occurs at the end of April, but never in March.

The point, however, interesting to us in April is the ice blockade in the river between Quebec and Montreal, especially as it is believed, with our knowledge of modern science, it ought not to exist, and if not removable it is any rate preventable.

My argument consists in my knowledge of the element of water, its power to receive heat and to receive cold. The temperature of the river to-day is 34 degrees, 2 degrees above freezing; this is not the case with the land or the ice, they assimilate nearer the temperature of the air, which is frequently very cold, and in March, except when the sun is shining, rarely at a temperature of 34 degrees.

These facts being correct, we have to attribute this early navigation to the river having been kept clear of ice during the winter, and its preparation to receive solar heat early in March.

A shaft of water, at a temperature above freezing, being pushed and worked up and down by the tide, has an effect on the air, as the vapors can be both seen and felt, especially when this mass of water extends 100 miles inland, as is the case to-day.

The navigators of the Upper St. Lawrence ought to combine in winter, and, by the use of modern mechanical science, keep the navigation open by attacking the ice, where it can be done successfully, such as Point Lévis, the Chaudière, Point au Platon, the Lake, and so on, and prevent the ice blockades and subsequent spring inundations. A Dundee whaler could now, with the help of steam saws and dynamite, work its way through Lake St. Peter to Sorel, and so start by the use of the steamboat wave all the ice which Providence is going to send down in a few weeks—*Aide toi et Dieu t'aidera*.

I need not add, with open waters at Sorel in March, the men of Montreal will not retain their present honorable position in progressive science, if they cannot find some means of removing the impediments to their trade, and the evils of high waters to their city.

Get open waters both in Lake St. Francis and Lake St. Peter, and near as you can to Montreal, and the larger their volume the better, then feel assured two degrees above freezing will tell its tale, the night frosts will be diminished, whilst the day thaws will be increased, and your ice will rapidly disappear in the direction of Quebec, where it will be converted into water.

Remember thirty-four degrees is above freezing, and all that latent heat is covered up with ice in Lake St. Peter, and so protected from the sun's rays and all contact with the air, consequently causing delays and late navigation.

The captain of the "Alert" can do this service as easily as navigating Hudson Bay, if he was ordered to report in Montreal, and Canada would gain by having open ports in April instead of in May.

I enclose the Signal Service Report for 25th March, 1886, and

I have the honor to be, sir, your obedient servant,

W. RHODES, *Vice President Quebec Geographical Society.*

## SIGNAL SERVICE REPORT.

QUEBEC, 25th March, 1886.

Cape Rosier—Thermometer 31. Dull and cloudy; variable winds; heavy open ice everywhere, moving north-east.

Manicouagan—Dull and variable; no ice. Inward at 7 a.m. yesterday at Moisie, one schooner. Mail courier arrived 23rd, p.m.; reports shore ice from Point Esquimaux to Point des Monts broken up and Gulf clear.

Point des Monts—Dull and variable; no ice.

Anticosti—Thermometer 30. Light unsettled weather, with variable winds. South channel—No ice. North channel—Light close-packed ice in shore. South-west Point—Outward at 6 a.m., schooner "Java," several sealing schooners about island; schooner "Campbell" fitting out at English Bay for sealing.

Meat Cove—Dull; strong north wind; ice extends four miles off clear water outside.

Cape Ray—Clear and fine; light north-west winds; no ice. A schooner arrived this a.m. from the Gulf, with 1,100 seals.

QUEBEC, 21st April, 1886.

To the Editor of the *Quebec Mercury*:

SIR,—The conditions of the river in the harbor of Quebec have been so entirely satisfactory for the last month that I do not think they can be much improved. The grand battle against the floating ice by three steamboats during the winter has been so eminently successful, it will, no doubt, be renewed every year; and, though the steamboats lost screws and received other injuries, yet they demonstrated the fact that ice has to yield to superior force when guided by modern skill. In the St. Lawrence there appears to be two "points" between Quebec and Montreal, where the ice may jam in such a way as to become a public injury, viz., at the Chaudière and at Boucherville.

The Chaudière did not bridge this year, no doubt from want of material; as from the ice being kept in movement by the seven hours of falling tide, against the inflow of four hours, it would reduce the quantity of ice to pass through the narrows.

The formation of a bridge at the Chaudière is always uncertain; the nature of ice is to disperse and separate, to melt, but not to adhere; it is constantly trying to return to the condition of water and to flow instead of becoming solid. When an ice jam does form at the Chaudière it becomes so solid (twenty feet in thickness) that it only yields by melting and by the pressure of the lake ice. The effect of no bridge at Lévis and none at the Chaudière, was probably the breaking away of the Platon bridge, and consequently navigable water up to Three Rivers.

The Chaudière bridge can be prevented as easily as the Lévis, as it is the upper portion of the same water, and can be kept clear by the ordinary ferry boats, especially if directed to do so by the Harbor Commissioners of Quebec.

There appears to be a good deal of similarity in the history of these two ice jams, the Chaudière and the Boucherville, and I have little doubt a like treatment would lead to the same result which we claim at Quebec, of a better state of affairs; but the commencement must be made for Montreal at the point of the river where navigation ceased this winter, viz., at Three Rivers, and a passage or lane of water kept clear to the mouth of the Richelieu (Sorel). These water spaces are found in the Arctic seas, would follow the line of the current through Lake St. Peter, depending upon the flow of the water through the lake to keep the young ice running; in fact, run a ferry boat between Three Rivers and Sorel.

This year the breaking up of the ice on Lake St. Peter immediately relieved the inundation of Montreal; so it would appear if this had been artificially done. Montreal would have been saved a great misfortune. I would recommend Mayor Beaugrand to ascertain who is responsible for the navigation of the St. Lawrence, and if due



diligence has not been used to sue that department for a million dollars (this would no doubt bring on to the Public Estimates \$50,000, for the further improvement of the St. Lawrence) or to show cause why it is a dispensation of Providence and nobody is responsible.

In a previous letter (27th March) I have shown that the removal of ice from the surface of the water admits the rays of the sun, and heightens its temperature. This is to-day practically the case, as water coming into our harbor from the west shows a steady temperature of 34 degrees, whilst water coming from the east varies from 34 to 36 degrees.

The climatic effect is that we are sowing our gardens in Quebec on the 20th April, whilst for the last 49 years I have never been able to do anything before the 26th or 29th of April; our cows are also in the field, getting a half meal, and vegetation is far advanced.

The whole of this subject is of such national importance and of so great scientific interest, and by geographers, we shall become like Arctic navigators, surprised at our own want of courage, and at the facility with which we have abandoned to Providence an apparent impossibility.

I believe Providence does not expect us to wait until the sun removes the ice from our harbors, and I do not think Montreal will submit to be the last ice blockaded port on this continent. Even Hudson Bay hopes to compete with the St. Lawrence, and she will do so if she can solve the ice question.

I have the honor to be, sir, your obedient servant,

W. RHODES, *Vice President Quebec Geographical Society.*

**TEMPERATURE of the water of the St. Lawrence, opposite Quebec—Continued—1886:**

April 9	Falling	tide at	2.00 p.m.	.....	32°
do 10	do	do	2.30	.....	32°
do 12	do	do	2.30	.....	32°
do 13	Rising	do	11.30	.....	36°
do 13	Falling	do	5.00	.....	34°
do 14	Rising	do	noon	.....	36°
do 14	Falling	do	5.00	.....	34°
do 15	Rising	do	1.30	.....	34°
do 16	Falling	do	8.00 a.m.	.....	34°
do 16	do	do	7.30	.....	34°
do 17	Rising	do	3.30 p.m.	.....	34°
do 19	Falling	do	8.15	.....	35°

Since the last return only two observations have been taken to establish the temperature of the ice in the Louise Basin. The result has given 32° in each case, the dates being the 9th and 10th of April. The ice is broken since the last date.

To Colonel Rhodes, with Mr. Verret's compliments.

**SIGNAL SERVICE REPORT.**

QUEBEC, 21st April, 1886.

Cape Rosier—Thermometer, 41°; bazy, light north-east wind; no ice.

Anticosti—Thermometer, 40°; cloudy and calm; no ice. The steamer "Titania" in the same condition as last fall, uninjured by ice.

Cape Despair—Dull, north-west wind; no ice.

Point Maquereau—Cloudy and warm; light west wind; no ice.

Point Escuminac—Clear and fine; light west wind; heavy close packed ice everywhere.

Cape Tourmentine—Clear and fine; strong south-west wind; ice two miles in extent, moving east.



Meat Cove—Thermometer, 60°; clear and warm; strong south-west wind; heavy open ice everywhere, moving east.

Low Point—Clear, fine and warm; strong south-east wind; ice everywhere, moving east.

Cape Ray, Newfoundland—Clear and fine; light south-west wind; fishing fair; no ice.

St. Pierre, Miquelon—Clear and fine; prospects of cold weather; light south wind; no ice near shore; some open ice visible far out.

216 ST. MARTIN STREET, 18th January, 1886.

A. A. STEVENSON, Esq., City Hall.

DEAR SIR,—I read with interest the letter in Saturday's *Star* bearing on the floods, and having until recently lived on the river bank south of St. Helen's Island, and where my father still resides, I have seen considerable of the river's changes. The only letter in the *Star* bearing on the real points is the one written by Dr. Mount, and I quite agree with him that the present flood has been caused by the mild weather at the time he mentions.

Some of the writers suggest the removing of all the islands on the south shore. Now they are the only protection Longueuil has from being drowned out, as the ice anchors around these islands and prevents shoving to a large extent. One writer suggests removing Isle Ronde also, and, if we were Americans, St. Helen's Island would also be removed. It is the writing of such that prompts me to write this letter.

I would like to ask these gentlemen what caused the flooding of Laprairie Bay and also at Isle Perrot, and around the Cascades; was it the deepening the channel at these points? Certainly not. Some people think it is our harbor and river improvements that cause the recent flooding spring and fall, and of course the Government and the Corporation are supposed to spend a lot of money, in fact all they have to satisfy some people's imaginations. The harbor improvements have no more to do with it than the flooding of the other points I have before mentioned, and until we can control the weather, it is useless spending a lot of money on surveys.

Anyone that has watched the river as Dr. Mount has done, must agree with him, a great portion of the city can be made free from floods by closing the sewers that enter the river above the main Craig Street sewer at that point to have it pumped into the river. If all the islands on the river were cleared away, and of course the expense would be something enormous, we would still be as likely to flooding as at Isle Perrot. I can, if you wish, give a great deal of information about the forming and breaking up of the river. A good deal of the present cry out is of course against the Government.

J. G. HOLLAND.

QUEBEC, 15th January, 1886.

TO MR. ALDERMAN STEVENSON, Chairman Committee of Inundations.

SIR,—Pursuant to your public invitation will you allow me to make a remark or two.

If we look abroad and observe the course pursued by other cities, both in America and Europe, we shall find that any great question of construction is invariably committed to the handling of qualified experts, as they are commonly designated "civil engineers."

These highly educated, and what is more to the point, specially educated men, have not only for their guidance the judgment and intuitions resulting in their individual persons from long years of study and the traditions and axioms of their comparatively modern profession, but they obtain, by the time and labor which they are paid to exert and spend in the local investigation of the particular case, a view as complete as possible of its special nature and requirements.

Now, then, qualified men would by no means despise the evidence of former inundations, such as you wish to be laid before your committee. They would use such evidence, and form an enlightened judgment on its bearings and value. Then, they would go into the question of probable expense, and submit a scheme for the approval of the citizens and their qualified representatives.

In a cause like this there is something approaching to completeness, up to the point of an actual laying hold of the work. But when your honorable committee should have heard the evidence and the schemes of all the old residents who have been interested for years watching the ice floes, it will not, therefore, be in any position to decide upon the future course of the city in relation to security from floods.

Much of the evidence and all the schemes will want severe sifting, such as engineers only could give to them, and it is no disparagement to the honorable gentlemen of your committee that, in the absence of the qualifications alluded to, they will find their duties little other than burdensome, and in any event ineffective for a final decision. The expense of a scientific enquiry could not be very great, in view of the extreme urgency of the case, and it is to be earnestly hoped that a commission of experts will be appointed in the premises.

In Britain and in Holland, great works of protection have been in existence on the great waterways for centuries past, and on the Mississippi the subject is constantly receiving attention, and many important levees have been built; although, if our American neighbors would take up this question as a whole, and complete the banking as rapidly as might be, they would be immense gainers, for it is a work that should not be attempted in dribblets.

Asking your patience for these hasty notes.

I remain, dear sir, very respectfully yours,

HENRY HEMMING.

(Translation.)

St. VINCENT DE PAUL, 21st January, 1886.

SIR,—Permit me to attract your attention to the subject of the floods in order to make known my opinion. Firstly, the floods are caused by the frasil which enters under the ice at the foot of the current, forming a hard solid mass from the bottom to the surface, which is called the vault; this vault extends from the foot of St. Helen's Island going northward, impeding the descent of the water in such a way that there is not enough space for the usual flow; the water is heaped back in the low places, and it is not until after the ice has risen above the city that the frasil diminishes and then the water takes its course again.

Sir, this is a plan which I propose to you: At low water I would have a channel dredged on the south of St. Helen's Island, 600 feet wide by 30 feet in depth and would construct a dam with openings at every 25 feet, and another at the head of the Island and a solid dyke, and by this means you will have a strong water power which could be utilized, and when the channel on the north side was blocked that on the south could be opened and I believe that would do a great deal to prevent the floods.

Your very humble servant,

DIDYME MEILLEUR, *Pilot.*

GEORGE W. STEPHENS, M. P. P., appeared before the Committee and said:

The question of inundation has occupied the attention of the council at various periods since the year 1860.

During the term of the late Mr. McQuesten, city surveyor, and while I held office, various remedies were discussed and instructions given that in future the levels of all new buildings should be given above high water mark, and a plan was adopted of raising the grades of the streets. This was done in many instances.



There are two ways of getting rid of the inundation difficulty :

First—By sluice gates and receiving tanks at the outfalls of the main sewers, pumping the sewage during the stage of high water.

This could be done by establishing three pumping stations, one above the mill race, Point St. Charles, one at the Custom House, Point à Callière, a third at Colborne Avenue.

Intervening small sewers to be connected to the main sewer interiorly. The Point St. Charles district could be done very cheaply, as the aqueduct embankment with a little repair already affords protection to this district between the canal bank and the river side.

An experiment could be tried immediately with this section. The cost would be inconsiderable. The second remedy is to raise the streets throughout the inundated districts above flood level by depositing thereon the ashes of the city and the earth procured from excavations.

The expense could be met by a local assessment.

Under the local assessment by-law of Toronto, construction or reconstruction, but not ordinary repairs or maintenance of drains, sewers, roads and sidewalks, or for leveling, grading, paving, bridge building, curbing, sodding or planting, street sweeping, lighting and watering, are charged to the parties immediately benefited thereby. This plan is adopted for the most part throughout American cities. The adoption of this system would prevent what is called ward grabbing.

The reason why our older wards are neglected is that the taxes raised from them are largely spent in developing the unimproved parts of the suburban wards, most of which contribute lightly and draw heavily on the common revenue. If new works were, as they should be, charged upon the locality directly benefited, a large sum would be set free over the city for general purposes.

The water in the St. Lawrence opposite the city will rise to flood height as long as there are batteries or shoals for the ice to lodge upon, and weather which produces frasil.

The long wharf at St. Lambert ought to be blown up. This would take away one obstacle and reduce the swiftness of St. Mary's current.

The raising of the streets in the flooded districts would increase the value of property.

I do not think the flooded districts are rendered unhealthy by the mixing of the sewage with the water, or that much sewage is flooded into the cellars. The objectionable and unhealthy feature is the allowing the ice to remain in the cellars all winter, and the consequent damp and chilly cellars.

Sewage forms but an infinitesimal part of the flooding water.

As a matter of fact sewage air does not come into houses while the sewers are full of clean water to the arch of the sewer.

There being no vacant space in the sewer, there can be no formation of air there to be sent back into the houses.

A comparatively empty sewer may generate unpleasant air; a sewer full to the arch with water does not.

There is no necessity of spending any money on outside engineering talent, Messrs St. George and Brittain are perfectly competent to deal with the question practically.

GEO. W. STEPHENS.

(Translation.)

COTEAU DU LAC, 25th January, 1886.

DEAR SIR,—I have just seen by the newspaper of the 23rd that you have resolved to take measures to prevent new floods.

As it is every citizen's duty to assist in some manner, I hasten to suggest a method to you, a method which is inexpensive, very efficacious and the effectiveness of which I have had occasion to judge of for twenty years.



The floods come from the clogging of ice and of "frasil" coming together in too narrow channels. To stop its effects it is sufficient to make a boom (according to the customary expression) crossing the river where there is plenty of water, about two leagues higher up than the place where the clogging occurs. This method is for the autumn. For the spring floods it would be necessary to bar Lake St. Louis by the same means. In this manner it would cost very little and be very effective, according to twenty years' experience. For fuller information, if the method is adopted, please write me. If this is going to appear in the newspapers, I beg you not to give my name and sign it, "A Citizen of Coteau du Lac."

Yours, &c.,

G. PAIEMENT.

Alderman STEVENSON, Montreal.

P. S.—The effect which this "boom" would produce would be that the ice would make before the heavy frosts made themselves felt, so that when the ice had taken you would not have to fear the water because it would have already taken its course under the already solid ice; briefly, for the Boucherville Islands, the channels would be always free and the water would not be impeded in its flow.

Yours,

G. PAIEMENT.

(Translation.)

MONTREAL, 25th January, 1886.

SIR,—Since the Floods Committee invites everybody to give the help of his ideas upon the means to be taken to remedy the evil which is called "the floods," I will permit myself to submit to you very humbly my plan, believing it good and sure, above all for the ordinary floods, that is to say to stop the entrance of the water into the cellars by the pipes which connect with the St. Lawrence.

In the first place I propose to take away the pipes which discharge along the river, so that there should no longer exist on the banks of the river those openings by which the water, forced up by the rising of the St. Lawrence, finds this means of getting into the cellars. These pipes once taken away, place an immense pipe able to receive all the drains of the city, and carry it down below the city far enough, so that the rise of the water cannot reach up to the city.

Perhaps you will find it better to drain the city towards the side of the River des Prairies, but I think that it would be better to do so down along the St. Lawrence.

By this means we are sure to stop every ordinary flood. We shall then have to master the great floods like those of this winter. The water having overflowed Point St. Charles, I can only see the construction of walls at these low places, or if the thing is possible, to build large gratings by which this water could also be let into your large pipe. That, my dear sir, is the humble opinion of

Your obedient servant,

CHARLES DESJARDINS.

JACQUES GRENIER, Esq.

(Translation.)

MONTREAL, 25th January, 1886.

To COLONEL A. A. STEVENSON, Chairman of the Municipal Commission charged with the question of the Floods of the St. Lawrence.

SIR,—I have read the methods set forth by the Committee on the Floods; these methods, more or less ingenious, do not, however, bear an attentive examination, and they are generally beside the question. And yet the problem to be solved is simple, and I have not even the merit of discovering its solution.

Many cities have found themselves in the same plight as Montreal, it may be with watercourses less considerable than the St. Lawrence, but at bottom the principle remains the same.

The heaping up of the ice is caused by the small velocity of the current; this small velocity is again partly broken by St. Helen's Island. The ice thrown from the Lachine Rapids into comparatively still water, moves slowly down as far as Longueuil and is not long in piling up and producing those ice mountains so often observed in the St. Lawrence. The only practical and the cheapest method of creating a quicker current, and at the same time enlarging the bed of the river, is dredging. This is a very simple operation nowadays, when as a consequence of the accomplishment of the Suez and Panama Canals, industrial art possesses those powerful dredges which, with so little manual labor, do so much work. I do not hear anything said of well planned dredging following along a profile established by soundings, and creating in the centre of the river a channel sufficiently deep to take the bulk of the water and create this precious current which will carry away with it in its course, according to its sphere of action, the drifting ice floes.

Two or three dredges would suffice to bring this work to a good end; but it is absolutely necessary that these should be powerful dredges, on the model of those which dug out Suez and Panama, for ordinary dredges would not do appreciable work.

Raising the level of the streets, besides being very costly, would involve the unhealthiness of all the houses now built in this part of the city.

If, sir, you approve of these opinions, although they are rather summary, and if they have any interest for you, I could undertake the execution of profiles and soundings, having already carried out similar works, and could then furnish you with detailed plans, from which it would be easy to calculate the amount of excavation to be executed, according to a uniform plan of bottom. This amount together with the limit of time would serve to determine the number of dredges necessary.

I would like to carry out this work under the eminent direction of the members of the city council, and I would be glad if you would be so kind as to take into consideration my offers of service, not as a contractor, but as an executive officer under your orders.

If you wish to, sir, you might apply for references to Doctor d'Orsonnens, whose distant relation I am and who knows my family well.

I have the honor, sir, to beg that you will believe me to be

Your obedient servant,

MAINE.

(Translation.)

Mr. CHARLES LÉGER, Pilot, of Lachine, P.Q., gives his opinion upon the causes of the periodical floods.

MONTREAL, 13th July, 1886.

Besides the information which I have given the Special Committee on the floods, I desire to add that the causes of the periodical floods at Vaudreuil and at Isle Perrot, have nothing to do with the floods at Montreal, which are caused as a consequence of the descent of the ice of Lake St. Louis, and I am in a position to prove positively what I affirm.

Between Isle aux Cheveaux and the last lock of the Beauharnois Canal, there is to be found a fall known by the name of the Jument Blanche (white mare). This fall has a hollow which engulfs everything that passes there.

About the 10th February, 1885, a storm came up and a considerable quantity of snow and frasil completely filled up this cavity. This fact re-occurs every seven or eight years towards the end of January and the beginning of February. Some forty years ago this fact occurred towards the end of the month of February, when the water flooded my father's building on Ile Perrot.

Towards the end of the month of January and the commencement of the month of February when the cavity in the Jument Blanche fall is filled up with snow and



frasil, as above mentioned, the ice rises over the lower lock of the Beauharnois Canal as well as over the Bris de l'Eau rock, situated at the foot of Isle aux Cheveaux, and this causes the delay in placing the lightships in this neighborhood and turns aside the natural course of the St. Lawrence towards the Sickle above Isle aux Cheveaux, and passes over the point of the Cascades and floods Ile Perrot as well as Vaudreuil. The water continues its course by the little river of St. Eustache.

The ice of Lake St. Francis, which is 33 miles in length and of a width of 6 miles has to come down through a space of a quarter of a mile between Coteau and Clark's Island.

This ice is rotten before coming down and does not contribute at all to the floods of the city of Montreal.

his  
CHARLES X LEGER.  
mark

Witnesses—CHARLES ARNOLDI, E. CHRISTIE.

### TO THE CITY OF MONTREAL.

The Special Committee on Inundations respectfully report,

That as directed by the council, they have been engaged, during the past three months, in carrying on the work necessary to test the feasibility of the plan proposed in a former report, for the protection of the city from sewer floods. This consisted in constructing puddle-dams near the outlets of the main sewers leading to the river, with the view of preventing the rising waters, on the breaking up of the ice, from backing up into the street drains, and thence into the cellars of business places and streets in the low-lying districts.

The outflow of the sewage being thus obstructed, pumping stations were required to pump the sewage over these dams into the river.

It was deemed advisable this year to limit the work to those sewers west of the custom house, which receive and discharge the sewage and surface water of the St. Ann's ward, that being the district which suffers most from these periodical floodings although the portions of St. Antoine, West and Centre wards, which drain through McGill, St. François Xavier and other streets into the William Street tunnel (having its outlet in front of the custom house) likewise enjoyed the benefits resulting from this undertaking through the blocking of St. François Xavier Street drain at the foot of that street and its connection, with the pumping cut by a wooden box drain 2×2 and 60 feet long, which your committee caused to be constructed.

Six pumping stations were established: No. 1 being in Commissioners Street, near the custom house, which received the contents of the sewers of William, McGill and other streets as far east as St. François Xavier. The sewer at this place is 14 feet six inches wide and 12 feet deep. The cut was 40 feet long 16 feet wide and 18 feet deep (with two side cuts 10 × 8 × 15) in which was constructed a solid dam of puddle clay, 20 feet on the surface, tapering to 12 feet at the bottom and properly secured by heavy timbers, with a flume and sluice gate of the full dimensions of the William Street tunnel; the other twenty feet required for pumping and discharge basins. In excavating here, an object of great interest was discovered, the existence of which seemed to be known to very few, viz.: the ancient stone bridge, erected during the occupancy of the French, to span the open creek, which at that time ran along the present line of Commissioners Street. The masonry seems as strong and substantial to-day as when first erected.

The cut at No. 2 station, in Mill Street, near the canal tail race, at Tate's dock, was 41 feet long, 24 feet wide, and 17 feet six inches deep, with a dam of blue clay, flume and sluice gate, protected by timbers 20 feet 6 inches by 8 feet. This station received the contents of a large number of drains in Point St. Charles.

Nos. 3, 4 and 5 stations were located at the foot of Forfar, Conway and Britannia Streets.

No. 6 station, in St. Etienne Street, near the abutment of the Victoria Bridge.



For the further protection of this part of the city, it was found necessary to construct an earth embankment from Forfar to Britannia Street, 477 feet long, average depth 7 feet 6 inches, average width 9 feet 6 inches, with a small flume and flood gate in surface drain on Britannia Street, and a similar embankment, south of that street, on river front, 12 feet long, 4 feet wide, 3 feet deep, with a sluice and gate. It was also found necessary to erect embankments at various places above Victoria Bridge on the rifle ranges and the Nun's farm. These consisted of:

1. A dam and embankment at top of ranges, 22 feet long, 20 feet wide, and 7 feet deep, with flume and flood gate, the flume being 20 feet long, 2 feet wide, and 3 feet deep;

2. A long embankment, about 350 feet, average width 5 feet 6 inches, average depth 5 feet 6 inches, with one flume and gate, the flume being 20 feet long, 1 foot 10 inches wide, and 2 feet deep;

3. A second embankment, length 273 feet, average depth 4 feet, average width 5 feet, with flume and flood gate, the flume being 14 feet long, 1 foot 4 inches wide, and 1 foot 9 inches deep;

4. A dam and bank at back of butts 18 feet long, 10 feet wide, 6 feet deep, size of flume 13 feet long, 1 foot 10 inches wide, and 1 foot 5 inches deep;

5. A dam in front of butts, 12 feet long, 7 feet wide, 7 feet deep, with flume and gate, size of flume 13 feet long, 1 foot wide, and 1 foot 2 inches deep;

6. A bank and dam north of rifle ranges, 12 feet long, 12 feet wide, 4 feet deep, with flume 13 feet long, 1 foot 4 inches wide, and 1 foot 5 inches deep;

7. A dam and embankments on the Nun's farm, 24 feet long, 12 feet broad, 6 feet deep, with flume 21 feet long, 3 feet wide, and 2 feet 6 inches deep;

8. An embankment and dam also on the Nun's farm, 50 feet long, 8 feet wide, 3 feet high, with flume and gate; flume 12 feet long, 12 inches wide, and 12 inches deep.

The work was not given out by contract, but was done under the immediate superintendence of Mr. Richard McKeown, who carried it out to the entire satisfaction of the committee. The same remark is applicable to Mr. James Wright, engineer, who had charge of the machinery.

The committee had the advantage of the co-operation of Messrs. Walter Shanly, M.P., C.E., John Kennedy, harbor engineer, Louis Lesage, superintendent Montreal waterworks, P.W. St. George, city surveyor. F. B. Lavallée, deputy city surveyor, also took an interest in the work and gave very valuable assistance.

Instead of leasing or hiring pumping machinery, as had been originally intended, your committee found it would be more in the city's interest to purchase the pumps required.

Accordingly they procured from the Morris Machine Works, Baldwinsville, N.Y., five Heald and Sisco No. 12 centrifugal vertical pumps, each capable of discharging 10,500 gallons per minute. Three of these were placed in No. 1 cut at Commissioners Street. The total capacity of the five being 75,000,000 gallons per day of 24 hours. Powerful hand pumps of modern pattern were sufficient for stations 3, 4 and 5, and a 6" rotary steam pump, owned by the road department, was used in No. 6.

The Grand Trunk Railway Company gave your committee valuable assistance by granting the use of three locomotives, on which considerable alterations were made to fit them for driving the large pumps on Commissioners and Mill Streets. They answered the purpose admirably, and your committee would recommend that, on examination and approval by an expert, they be purchased by the city and retained for similar work in future years. They can be procured for \$1,250 each, as they stand at present, including all charges for the alterations made to adapt them for this work.

The committee consider that it would be impossible to get the same amount of motive power in any other way for a like sum, and they therefore consider that the acceptance of the terms named in the letter to Mr. Wallis, mechanical superintendent, G.T.R., which is submitted herewith, would be most advantageous to the city. In the event of the council not purchasing these locomotives, the cost of their alteration and their return to the G.T.R. works will have to be defrayed by the city.

Whatever plans or schemes may ultimately be adopted for the prevention of floods, it is quite evident that, so long as the water in the river does not rise higher than the revetment wall, the pumping of the sewage furnishes an effectual and comparatively inexpensive method of keeping the cellars and streets free from inundation, and will doubtless be continued in future years. The experiment of this year, notwithstanding numerous difficulties and drawbacks, proved as satisfactory as the most sanguine could desire.

There is ample evidence to show that for eight or ten days previous to the 17th of April, the water in the river kept steadily rising, and attained a level which, but for the damming and pumping of the sewers, would have flooded nearly all the cellars in St. Paul, Commissioners and the lower portions of many other streets, in the business part of the city, as well as in St. Ann's ward.

Scores of people testify that in former years, with the water in the river at a similar height, they had been inundated to a depth of several feet, whilst this year, up to the day above named, they were perfectly dry. On that day, however, the water overflowed the river banks and revetment wall in a disastrous deluge, having risen to the unprecedented height of 44 feet 4 inches above the bottom sill of the lower lock of the old Lachine Canal (that being the datum line adopted by the Harbor Board for that purpose). In the great flood of 1861, the depth of water was 41 feet 8 inches, so that this year exceeded 1861 by 2 feet 8 inches. From Saturday, the 17th, at noon, until Tuesday, the 28th, when the ice jam in the river gave way, pumping operations were, of course, suspended. But as soon as the water commenced to recede, work was again resumed and within two or three hours the sluice gates in all the flumes were opened, and the pumps were kept in operation until the end of the week.

The expenditure already made in connection with this amounts to about \$8,000 and your Committee estimate that it will require between \$4,000 and \$5,000 to cover outstanding accounts and the work yet to be done. Should the council determine to purchase the Grand Trunk Railway locomotives, \$3,750 will require to be added. An account of this expenditure, and also a statement or inventory of the plant now in possession of your Committee is appended to this report. The value of the machinery and plant on hand, exclusive of the locomotives, is between \$3,000 to \$4,000, all of which will be available for use in future years.

Workmen are at present engaged in restoring the rifle ranges and Nun's farm to their former condition. The work will be completed in a very few days. The cut at Mill Street Station was found to be in a most unsuitable place, the soil there being a sort of quicksand, and there being a number of old flumes and pipes at that particular spot. There is a much better location 150 feet higher up the street, which is clear of all obstructions, and which will have to be adopted in future years. The pumps, framing, &c., were therefore taken up, and the brickwork of the drain restored.

Through the kindness of Mr. Conway, the pumps and other plant used at that station have been stored in the Government yard adjoining.

The pumps at Commissioner Street station have not been removed. Everything is left just as it was after the flood, awaiting the decision of the council as to what action is to be taken on the recommendations of the city surveyor, which accompany this report. Something must be done immediately, however, to remove the large bank of earth, so that the people in the neighborhood may not have cause of complaint.

#### *Recommendations by the Committee.*

Your committee are of opinion that the council should adopt measures for carrying on permanently the work undertaken by them this year, and as everything appertaining to streets and sewers properly comes within the jurisdiction of the Road Committee, your committee think that the machinery, plant and other material



now under charge of your committee should at once be handed over to the Road Committee so as to enable them to take steps for the protection of the present stations and to perfect arrangements during the summer for next season's work. The special committee could then be discharged from further obligations in connection with this matter.

The experience gained by your committee, in connection with these foregoing experiments, warrants them in recommending for the consideration of the council:

1. That properly constructed flood gates be placed during next summer at the mouth of all the main sewers, to answer the same purpose as the puddle did this spring, and the requisite pumping machinery erected in their vicinity, to empty the sewage into the river.

Care should be taken that one or two extra pumps should always be available in case of accident. Craig Street tunnel emptying at the foot of Colborne Avenue would require, say two No. 15 pumps, having a discharging capacity each of 16,500 gallons per minute.

2. Commissioners Street station through which William Street tunnel is discharged should have an additional No. 12 pump, making four in all.

3. Forfar, Conway, Britannia and St. Etienne Street drains should be connected with Mill Street station, and two additional No. 12 pumps supplied, making four in all, as at Commissioners Street.

The cost of these works is estimated by the City Surveyor's report (hereunto annexed) to be in the neighborhood of \$10,000. This amount could with great propriety be taken out of the drainage loan, inasmuch as the greater part of the work in question would in any event have to be done by the road department at an early date.

*Schemes suggested by Citizens for remedying the evil.*

Numerous plans or projects have been laid before your committee respecting divers works in the bed of the river, which their respective advocates claim would tend to prevent, or at least greatly mitigate, the evils of inundation. Amongst these are:

1. The construction of piers or breakwaters across the foot of Lake St. Louis, Lake St. Francis, or other points above the Lachine Rapids. These piers, it is claimed, would have the effect of preventing the ice breaking away in the fall; when the ice bridge is forming, and would also hold it later in the spring than at present.

If these expectations were realized the channel in front of and below the city, would be less likely to be choked in the fall, with the floating ice, which during a thaw, comes down in great quantities, from these two lakes, and would render it more likely that the ice in the harbor and its vicinity would get away in the spring before the lake ice comes down. It is also claimed that the construction of these piers would be very beneficial to all the municipalities below Lachine, on both sides of the river. Your committee deem this project to be one of great importance, meriting an early and earnest consideration at the hands of the Governments and the Council.

2. The removal of the old Railway Wharf at St. Lambert's, and otherwise clearing as well as deepening the south channel of the river from Victoria Bridge to Longueuil.

3. The straightening, deepening and widening of the ship channel as far as Longue Pointe.

4. The removal or shortening of the long wharf, which, it is claimed, projects unduly into the channel of the river.

5. The removal of Isle Ronde, and the clearing of the channel in the neighborhood of the Boucherville Islands.

6. The blowing up of the ice bridge, at different times and places during the spring months.



With regard to the above, your committee have only to say that as they relate to matters beyond the jurisdiction of the council, the river being entirely under the control of the Government, they would urge upon the council to obtain a conference with the Government on the whole subject. The committee hope that the projects above enumerated will be carefully considered by the Board of Engineers, which, it is understood, is now or shortly to be appointed.

*Final Recommendations.*

Your committee are, however, of opinion that no time should be lost by the council in taking measures to secure :

1. The adoption of higher levels throughout the low-lying districts of the city, which new levels should be gradually worked up, under the supervision of the Road Department, at the expense partly of the city, and partly of the localities benefited.

2. The reconstruction, and at a higher level, of the worn-out revetment wall, together with the construction of levees around the whole of the Point St. Charles district, an equitable proportion of the cost of these works to be borne by the Dominion out of the general revenues of the country.

3. The application to the Dominion and Local Parliaments, now in session for legislation to enable the Governor in Council, in conjunction with the city council to initiate and complete the necessary works, and also to authorize the council to negotiate a loan for the city's share of the expense.

In conclusion, your committee hope and trust that the general interest which has lately been awakened on this most important subject will not be allowed to subside, and that the council, having at last taken the matter in hand, and accomplished something in the right direction, will never slacken its efforts until some effective means are found to remedy to a great extent, and in time entirely prevent, the recurrence of those disastrous inundations which periodically cause incalculable loss to merchants and manufacturers, and produce indescribable misery and suffering in the homes of the working classes whose dwellings are situated in those portions of the city more immediately affected thereby. Montreal in the past, has been equal to every emergency, and her citizens and city council can surely never rest satisfied until all danger of inundations is entirely removed.

The whole nevertheless respectfully submitted.

A. A. STEVENSON, *Chairman,*

M. LAURENT,

J. McSHANE, Jr.,

ROBERT PATON McLEA,

*Representing the Board of Trade.*

D. A. WATT,

*Representing the Corn Exchange Association.*

COMMITTEE ROOM, CITY HALL, MONTREAL, 10th May, 1886.

TO THE CITY OF MONTREAL.

The Special Committee on Inundation respectfully report :

That the expenditure incurred in connection with their work from the beginning of February to date amounts to \$12,700 or \$4,700 in excess of the original appropriation.

In addition to this, however, there is the question of the locomotive to be considered. The Grand Trunk Railway Company offers to sell the three engines furnished to your Committee for \$3,750, and should it be decided to take them the total additional appropriation required will be \$8,500.

Should the city not purchase the three engines the sum of \$1,665 will have to be paid for repairs and alterations which had to be made to them; \$30 for the use of them, and \$300 for removing them back to the company's yard, or \$2,000 in all, which would be practically lost to the city.

Your committee could therefore recommend their purchase and assumption by the Road Committee, together with the other plant remaining on hand, amounting to \$3,827, as per inventory; that your committee receive a further appropriation of \$8,600 as above stated, to pay for the engines and all outstanding claims, and that the Road Committee be directed to carry out such permanent inundation work as may be determined upon in accordance with the city surveyor's report.

The whole respectfully submitted.

A. A. STEVENSON, *Chairman,*

M. LAURENT,

J. McSHANE, JR.,

ROBERT PATON McLEA,

*Representing the Board of Trade.*

D. A. WATT,

*Representing the Corn Exchange Association.*

CITY HALL, MONTREAL, 14th June, 1886.

### TO THE CITY OF MONTREAL.

The Finance Committee respectfully report:

That, as directed by the council, they have considered the accompanying report of the Special Committee on Inundation for a supplementary appropriation, and that they concur in the recommendation therein made.

The whole nevertheless respectfully submitted.

J. GRENIER.

J. H. MOONEY,

JEREMIE FERRAULT.

WILLIAM FARRELL.

COMMITTEE ROOM, CITY HALL, MONTREAL, 17th June, 1886.

### Reference No. 70,675.

MEMO:—Answer the letter from the City Council or its committee thus:

That the suggestion therein made has received the consideration of the Minister and has been submitted by him to Council, but that the Government do not see that the Dominion at large has any interest in the proposed levee at Point St. Charles, and therefore do not feel that they could recommend to Parliament a vote of money for that purpose. But that when the Commission of Engineers appointed by the Government report finally on their examination and the causes of the flood, should there be any Dominion work recommended, the Government will not fail to give to such suggestions their best consideration, with the view, if possible, of recommending the matter to the favorable consideration of Parliament.

H. L. L.

13th July, 1886.

### Reference No. 71,313.

(Translation.)

LAPRAIRIE, 5th October, 1886.

To the Honorable Sir HECTOR LANGEVIN, Minister of Public Works, Ottawa.

SIR,—I have the honor to transmit to you herewith enclosed a copy of a resolution passed yesterday evening, by the municipal council of the village of Laprairie, relating to the ice-breakers in Laprairie Bay.

I have the honor to be, sir, your most obedient servant,

A. J. A. ROBERGE.



*(Translation.)*

EXTRACT from the minutes of meetings of the municipal council of the village of Laprairie.

"At a general meeting of the municipal council of the village of Laprairie, held at the usual place on Monday, the fourth October, eighteen hundred and eighty-six.

"It was moved by councillor Ambroise Hébert, seconded by councillor Octave Dumontel, and unanimously resolved ;

"That this council has learned with extreme satisfaction the decision of the Government of the Dominion of Canada, with reference to the immediate construction of ice breakers in Laprairie Bay ;

"That in the opinion of this council, the carrying out of these important works has not been commenced a day too soon, seeing that every winter a considerable portion of this village is threatened with imminent ruin, and that only just time enough is left to complete the work before the ice takes ;

"That this council hastens to seize the first occasion which has offered to express its lively gratitude to the Honorable Minister of Public Works, Sir Hector L. Langevin, for having so kindly considered in a favorable manner the petitions of this council, which have been so effectively supported by the members for the county of Laprairie in the Federal and Local Houses.

"That while thoroughly approving the appointment of and the works hitherto accomplished by the commission on the floods, this council solicits a special enquiry into the means of preserving this village from the floods caused by the taking of the ice, and a separate report containing an estimate of the works to be carried out to prevent such floods ;

"That this council would be highly honored and very happy at the same time to receive a visit from the Honorable Minister of Public Works, a visit which would enable him to note the progress of the works commenced and would enable the residents of this locality to express personally to him their gratitude.

"T. A. BRISSON, *Mayor.*

"A. J. A. ROBERGE, *Secretary-Treasurer.*

"True Extract,

"A. J. A. ROBERGE,

"*Secretary-Treasurer.*"

*(Translation.)*

The Honorable SIR HECTOR L. LANGEVIN, K.C.M.G., C.B., Ottawa.

SIR,—The secretary of our municipality, Mr. Roberge, has received instructions to send you copies of certain resolutions adopted yesterday by the Council of Laprairie. The fourth of these resolutions necessitates some explanation which I hasten to give you in order that no delay may be incurred in giving it effect, provided always that you deem it opportune to accede to our request.

The village of Laprairie suffers not only from the great floods in the spring. In winter when the ice takes, the water covers over a great part of it, and afterwards freezes and causes considerable injury to property. The existence of the old embankment of the "Montreal and Champlain" railway, and of a levée constructed by the municipality, would allow the village to be effectively protected against the inconveniences referred to, and this at a comparatively small cost. The corporation is disposed to contribute to a certain degree towards this expenditure, but the important point at the moment is to know the exact amount of it. In order to arrive at that it would be sufficient to take some levels for a distance which is not very considerable and to calculate the cost of the embankment to be made—the work of a day or two at most for the Government Engineers. That, sir, is what the fourth one of the resolutions forwarded to you requests on your part. The kindness with which you have hitherto treated Laprairie leads me to hope for a favorable reply from you.



I have the honor to reiterate the invitation which has been given you to visit our locality. In the absence of other display, you will find there a population grateful for what you are doing for it.

I remain, sir, your obedient servant,

T. A. BRISSON.

LAPRAIRIE, 6th October, 1886.

Reference No. 72,307.

HARBOR COMMISSIONERS OF MONTREAL, SECRETARY'S OFFICE,  
MONTREAL, 8th November, 1886.

SIR,—Your letter of the 2nd inst., enclosing copy of a report from the Montreal Flood Commission, under date of the 28th ult., has been duly considered by the Commissioners.

In reply, I am to say, that the Commissioners are prepared to place four of their tugs at the disposal of the Department, with the necessary ice breaking prows (at an estimated cost of about \$1,000), free of all charge.

The working expenses, &c., of course will have to be arranged for by your Department.

As there is very little time left before the close of navigation to properly prepare the tugs, the Commissioners would respectfully ask as early an answer as possible.

I have the honor to be, sir, your obedient servant,

H. D. WHITNEY, *Secretary.*

A. GOBEL, Esq., Secretary Department of Public Works, Ottawa.

Reference No. 72,454.

*CERTIFIED COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 10th November, 1886.*

On a memorandum dated 3rd November, 1886, from the Minister of Public Works, representing that Parliament at its last Session, made the following named vote: "Examination in connection with spring floods at Montreal and vicinity, \$5,000," on the understanding that a like sum was to be contributed by the City of Montreal, and that of the amount so voted the sum of \$4,000 has been advanced to the Commissioners appointed to enquire into the causes and the means of prevention of such floods, thus leaving available a balance of \$1,000.

The Minister further represents that the Commissioners now apply for a further advance of \$3,000.

That the chief engineer of his Department to whom the matter was referred, suggests that the advance so applied for be made. The Minister recommends that authority be granted in accordance with the suggestion of his chief engineer, and that to enable the proposed payment of \$3,000 to be made, a special warrant of His Excellency the Governor General do issue for the sum of \$2,000, the Minister of Finance having reported there is no Parliamentary appropriation from which the same can be defrayed, and that a like amount be placed in the Supplementary Estimates to be submitted to Parliament at its next Session and the said sum of \$2,000 to be recouped to the Government from the amount to be contributed by the City of Montreal.

The Committee submit the same for Your Excellency's approval.

JOHN J. MCGEE, *Clerk Privy Council.*

To the Honorable the Minister of Public Works.

Reference No. 72,486.

CITY CLERK'S OFFICE, CITY HALL, MONTREAL, 16th November, 1886.

SIR,—I have the honor to transmit to you herewith an extract from the minutes of a meeting of the Finance Committee, held on the 11th November inst., accompanied by an extract from the minutes of the City Council with reference to the experimental measure suggested by the commissioners appointed to enquire into the causes of floods at Montreal.

I have the honor to be, sir, your obedient servant,  
CHAS. GLACKMEYER, *City Clerk*.

A. GOBEIL, Esq., Secretary Department of Public Works, Ottawa.

*EXTRACT from the minutes of a meeting of the Finance Committee, held on the 11th November, 1886.*

The committee having considered the resolution of the special Committee appointed to consider the report of the commissioners on inundations, suggesting the keeping open of the channel between Sorel and Three Rivers during the winter, by which resolution the Committee concurred in the appropriation of two thousand dollars as the city's contribution towards the cost of the proposed experiment, it was unanimously resolved to concur in the said resolution.

Certified.

CHAS. GLACKMEYER, *City Clerk*.

*EXTRACT from the minutes of a meeting of the Special Committee on floods, held on the 10th November, 1886.*

Submitted and read the letter of A. Gobeil, Secretary Public Works Department, Ottawa, and the accompanying report from the Commissioners suggesting the propriety of keeping open the river between Sorel and Three Rivers in winter as a means of preventing the floods.

The Committee having duly considered the said report it was resolved to concur in the suggestion, and that the Finance Committee be asked to appropriate the sum of \$2,000 as the city's contribution towards the cost of the experiment.

Certified.

CHAS. GLACKMEYER, *City Clerk*.

*EXTRACT from minutes of Council, monthly meeting, Monday, eighth day of November, 1886.*

Submitted and read a letter from A. Gobeil, Secretary of the Department of Public Works, Ottawa, transmitting copy of a report of the Commissioners appointed to enquire into the causes and the means of prevention of floods at Montreal.

On motion of Alderman Grenier, seconded by Alderman Stevenson, it was resolved, that said letter and report be referred to a special Committee composed of Aldermen Laurent, Donovan, Mooney, Rolland, Hamelin and the mover and seconder, with power to appropriate, subject to the sanction of the Finance Committee, a sum not to exceed \$2,000 towards the experimental measure suggested by the Commissioners, and deal generally with the question of the periodical inundations at Montreal.

Certified.

CHAS. GLACKMEYER, *City Clerk*.

Ref. No. 72,666.

(Telegram.)

MONTREAL, QUE., 25th November, 1886.

TO SIR HECTOR LANGEVIN.

Inundation Committee very anxious to know if Government will take immediate action to keep river open as suggested by Commissioners. Early answer requested.

C. GLACKMEYER, *City Clerk*.



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*(Telegram.)*CHIEF ENGINEER'S OFFICE, PUBLIC WORKS DEPARTMENT,  
OTTAWA, 25th November, 1886.

To C. GLACKMEYER, City Clerk, Montreal.

The Government will contribute two thousand dollars towards experiment of keeping St. Lawrence open as proposed by Flood Commission.

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Ref. No. 72,755.

*(Translation.)*

SIR,—Following and as a supplement to the report of a certain exploration made lately at Laprairie by Mr. Lafleur, I take the liberty of submitting for your consideration some facts suitable for deciding definite action on the part of your department, if such is its intention.

Although the season is rather advanced, I do not see any serious obstacle to the accomplishment of these works, particularly as to the portion comprised between the two icebreakers under construction. An embankment of the nature of that which is suggested by your humble servant would be the fitting complement of the protection works undertaken at the south-west extremity of our village, the portion which has been so seriously tried especially for some years past. This embankment—or rather this dyke—would suffice—with very rare exceptions—to prevent the ice entering the low part of the village. It would advantageously take the place of the building of a third ice-breaker between the two first, the necessity of building which might well be recognized before long. If the officers of the Department will be good enough to recall it to their memory, the people of Laprairie were given to understand that at least two complete ice-breakers would be put up this year. However, there is every right to consider that only one and a half are under construction, seeing the small dimensions of one of the two. I do not mention these matters by way of complaint. On the contrary, I have only to express to you our gratitude for the promptness with which you have come to our aid and for the deference which the officers of your department have shown me under all circumstances as Mayor of the place. For my own part, I wish nothing so much as to avoid the reproach of requesting unreasonable things and of leading the Government into useless expenditure. I feel myself perfectly at ease in this respect and I am sincerely convinced in making the present demand that the works which are the object of it have a great importance, that the cost of them would be quite moderate, and that their execution would result in preventing heavier expenditures later on.

From the point of view of the floods, the carrying out of the works asked for would furnish the proof that Laprairie could be preserved from the ravages caused by the floods of the St. Lawrence at a comparatively small cost. In any case, the plan now submitted for the study of the engineers of your department, and which refers specially to the winter floods, has considerable importance, not only for Laprairie, but also for the whole district of which this place is the chief town. The carrying out of it would have as its effect not only a sensible increase in the value of property at Laprairie, but it would also ensure at certain seasons to the people of the surrounding parishes communications of which they are deprived in the existing state of affairs.

To sum up, sir, I believe I can affirm that reasons of public interest are strongly in favor of this project, the realization of which is as easy as it is little burdensome for the Government of the Dominion of Canada. I therefore express, in the name of the people of this district, the ardent wish to see it accomplished during the present season, and I am, with the greatest respect, sir, your most obedient and very grateful servant,

T. A. BRISSON, *Mayor.*The Honorable Sir HECTOR L. LANGEVIN, K.C.M.G., C.B., Minister of Public Works.  
LAPRAIRIE, 25th November, 1886.



Reference No. 75,274.

MONTREAL FLOOD COMMISSION, MONTREAL, 10th March, 1887.

SIR,—The commissioners, on account of the severity of the past winter, the strength of the ice covering below this city, the large amount of snow remaining at this date and the possibility of a rapid thaw accompanied by heavy rains producing a breakup while the ice is yet very strong, have had under their consideration the propriety of an experiment with explosives for the purpose of weakening the ice about and below Longue Pointe, where they believe its long continued firmness last April was the chief cause of the excessive flood in that month. As this is the only means of amelioration which is now available, against the possible effects of the approaching breakup, they have come to the conclusion that, however uncertain may be the result, the experiment ought to be made, especially as it will not be attended with very great expense. It is possible that the river may break up and the ice depart without producing a flood, as is the case in the majority of years. The spring floods in the last quarter of a century have occurred always in the month of April, and only in the years 1861, 1865, 1869, 1885 and 1886; the last reaching 2 feet 9 inches higher than any of the preceding ones. This gives five spring floods in 25 years, an average of one in five years; but, since they occurred in both 1885 and 1886, another is possible this year. It is impossible to resort to explosives with any hope of success after the movement of the ice has developed the probability of a flood.

They propose therefore to break up with explosives the field ice in the main channel extending from above Longue Pointe towards Isle St. Thérèse, upon which they ask authority to expend a sum not exceeding \$3,000. The ice, of course, cannot be removed from the channel, but, if so broken up, the better exposure to the influences of advancing spring and the wear of the current would, they believe, so weaken it, that it would give way before the down coming ice, and allow the latter to be distributed over a greater length of river, thus forming a longer and lower temporary dam.

As the authority of the Dominion Government will be required for any such experiments in the main channel of the River St. Lawrence, the commissioners request the same be given them for this purpose at as early a date as possible.

We have the honor to be, sir, your obedient servants,

THOS. C. KEEFER,  
JOHN KENNEDY,  
HENRY F. PERLEY,  
PERCIVAL W. ST. GEORGE.

A. GOBEL, Esq., Secretary Public Works, Ottawa.

Reference No. 75,275.

CHIEF ENGINEER'S OFFICE, OTTAWA, 16th March, 1887.

SIR,—With reference to the letter of 10th March from the members of the commission appointed to enquire into, and report on the floods at Montreal, asking authority to expend a sum not exceeding \$3,000 in breaking up the ice in the main channel of the St. Lawrence extending from above Longue Pointe towards Ile Ste. Thérèse, I have to state as follows:—

In November last, the commission suggested that an experiment be made to keep open during the winter the channel of the St. Lawrence above Three Rivers, by the use of tugs especially prepared for that purpose, and an Order in Council was passed on the 26th November, authorizing the sum of \$2,000 towards carrying out this experiment, and directing that a special warrant of His Excellency the Governor General be issued and the amount placed in the Supplementary Estimates for the current year.

Owing to the lateness of the season it was impossible to carry out these experiments, and the amount authorized was not required.

As it is probable that Montreal may be flooded again during the ensuing spring, the commission is desirous of opening up by means of explosives a portion of the channel below Boucherville, that having been found to be the point where the free flow of the river in the spring is most retarded.

The commission states that the cost of these explosives would be \$3,000, and as I am of the opinion that the experiment is worthy of trial I have to suggest that, as the amount required in connection with the tugs has not been expended, it be transferred and made available for the purpose of the explosions the commissioners are now desirous to try.

I am, sir, your obedient servant,

HENRY F. PERLEY, *Chief Engineer.*

A. GOBEL, Esq., Secretary Public Works Department.

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Reference No. 76,020.

*CERTIFIED COPY of a Report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 7th April, 1887.*

On a memorandum dated 4th April, 1887, from the Minister of Public Works, submitting that Parliament at its last Session voted the sum of \$5,000 towards the cost of an "Examination in connection with spring floods at Montreal and vicinity," and it was understood that the sum of \$10,000 was to be expended on account of such examination, and that the Corporation of Montreal would furnish one-half of the amount.

The Minister represents that an over expenditure has been incurred by the Government of \$2,184.60 in excess of the amount voted by Parliament, and that the Flood Commissioners now apply for a further credit of \$3,000.

The Minister recommends, as the necessity is urgent, and the Minister of Finance having reported there is no appropriation from which the same can be taken, that a special warrant of His Excellency the Governor General do issue for the sum of \$2,815.40, which, added to the vote of \$5,000 and the over expenditure of \$2,184.60, will make the \$10,000 which it was decided to expend on the examination—the amount of the said over expenditure, and that of the warrant hereinbefore mentioned, in all \$5,000, to be recouped to the Government by the payment on the part of the Corporation of Montreal of the promised contribution.

The Committee advise that a special warrant do issue as recommended.

JOHN J. McGEE, *Clerk Privy Council.*

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Reference No. 76,343.

(Translation.)

The Honorable Sir HECTOR LANGEVIN, C.B., K.C.M.G., Ottawa.

SIR,—I have the honor to invite your attention again to the request of the Council of the Village of Laprairie concerning the improvements to be made to the harbor of this place and certain works of protection against the floods of the River St. Lawrence.

Immediately after the interview with which you were good enough to favor Messrs. Tassé, Charlebois and myself, on the 6th instant, I would have liked to have prepared this document and submitted it to you, but, since then, illness, and, indeed, death, having visited my family, I am compelled to explain the delay which has occurred, and to beg to be excused for it.

Having accomplished this duty, I hasten to enter into the heart of the subject which is engaging us.



The question of improvements to the harbor of Laprairie has been before you, sir, since the winter of 1882. During the years 1882, 1883 and 1884, works of some importance were accomplished, especially at the quay and in its neighborhood. Everytime that I have had an opportunity of so doing, I have plainly expressed my gratitude for all that the Government has done in the interest of the taxpayers of this district, and I am happy to renew this expression to-day. To complete the work on this side, nothing more remains but to raise that portion of the quay which is nearest to the shore to the same level as the rest, and to finish the channel which leads to the waterway of the river. Two communications addressed by myself to your Department, under date of the 16th of March and the 28th June, 1886, contain information upon the same subject.

During a certain period, Mr. Arnoldi seemed to think that the channel as it now exists is sufficiently wide. However, the force of the wind in Laprairie Bay, the extent of which you know, is sometimes such that the passenger boats are in danger of touching, and that, in fact, they have touched on the edges of this channel. When they are towing a barge the risk of it is by so much the more increased. Indeed, if I may be allowed to employ an argument *ad hominem*, Mr. Arnoldi, while passing through this channel at the time of his visit in the month of June last, went aground himself and broke one of the wheels of his yacht. I think, however, that this gentleman did not need this accident to modify his first opinion, and that without it he would have decided to make a report in favor of undertaking the works asked for; but I think that the instancing of what happened to him is of a nature to produce upon the Honorable the Minister, under whose orders he is, a more effective impression, and that is why I signal him out.

In support of my case, I might again enumerate all the reasons mentioned in the original petition of the year 1882, asking for the opening of this channel, reasons which have preserved all their force, but I content myself with referring thereto. It will be sufficient for me to add that with the present channel there can be employed, for the transport of grain, wood, coal, etc., only barges of medium capacity, or to only half load them so as to make two trips instead of one. If this state of things is favorable for the navigation company which carries on the service here, it cannot be so for the trade in general. It was in this way, too, that you understood it, sir, by admitting the principle of the necessity of a new channel, and by ordering the commencement of the dredging works therefor. If it pleases you to put the crown to this work which is already well advanced, the public will have the full benefit of the expenditure made up to date by your Department on behalf of an improvement which has been claimed for a long time, and the utility of which nobody can contest.

In the course of our last interview you pointed out to us that the ordinary credits for the improvements of harbors and rivers having not yet been voted by Parliament, it would be difficult for you in any event to do anything before the 30th of June next. Would it not at least be possible to have the dredge come here at the opening of navigation? For, when once the month of May is over, it is impossible to tow it above the Victoria Bridge. I especially invite your attention to this latter point.

The continuance of the works of protection against the river floods is equally of the highest importance for the Village of Laprairie. This question is one of painful reality for many families which at this moment are casting anxious looks towards the Dominion Government and are expecting from it their safety. It is the imperative duty of the municipal authorities to urge our rulers with earnest requests in order to obtain prompt help from them, and to work so as to prevent as far as may be in their power the recurrence of the disasters which signalized the floods of 1885 and 1886. I had the honor, in two letters dated respectively the 6th October, and the 25th November, 1886, to submit, for your consideration, a very simple and inexpensive plan of protection, which met with—I am confident of that—the approval of the engineers of your department. The cost of it is estimated at \$5,000, according to Mr. Perley's report. The first thing which strikes one, is that



such a sum seems very little, seeing that it is intended, for the completion of dyking works of a nature to protect a village of such importance as ours. It would not be so without the proportion offered by the municipality in the shape of work already done and the value of which certainly surpasses by half the total sum asked from your Government.

In order to conform with the recommendation contained in the report above cited, the corporation of Laprairie has ensured for itself the possession of the old "Champlain and St. Lawrence" embankment, as well as of all the land necessary elsewhere. As was agreed upon during the interview of the 6th instant, the corporation undertakes to replace the stone pavement which exists in some places in the projected embankment, and to do so in a manner satisfactory to those concerned. After having studied the question well, I cannot arrive at a better suggestion than that of causing to be deposited on the quay the earth taken out of the river by the dredge, in order to cover with it the streets which are intended to form part of the dyke. Without being able to determine exactly the geological composition of the bed of the St. Lawrence in Laprairie Bay, I can affirm, being supported therein by experience, that no heavier, more solid, and more durable soil could be employed for the purposes desired. Evidently, it is not possible to find in place, in the heart of the village where all the houses are, the necessary materials for raising the streets. As soon, then, as it is necessary to go to some distance, the harbor is as near at hand as any other place at our disposal. On the other hand the use of such advantageous soil in preference to arable soil without consistence, would compensate and even more than compensate the increased expense incurred to obtain it. We shall have a permanent work which it will not be necessary to repair or to commence over again the following year. In fact the recommendation to no longer obstruct the river, which has been made by so many competent engineers will be accomplished by the same means.

Casting a glance of the eye over this epistle, which is so long that it would be difficult to read it all at one time, I am afraid, sir, that I have abused your patience. The desire to render a service to my fellow citizens of which they are absolutely in need, is my only excuse. If, on the most evil day of its history, Laprairie finds a powerful and enlightened protector in you, no one will have a right to be astonished at it, for the goodness of your heart is known and appreciated by the people of this village, for whom it has been shown more than once already.

In the hope that it will not contradict itself in this decisive case, I have the honour to sign myself, sir,

Your very humble and obedient servant,

T. A. BRISSON, *Mayor of Laprairie.*

LAPRAIRIE, 20th April, 1887.

Reference No. 76,582.

CITY CLERK'S OFFICE, CITY HALL, MONTREAL, 30th April, 1887.

SIR,—I have the honor to transmit to you herewith an extract from the minutes of a meeting of the Finance Committee, held on the 28th instant, relative to the question of the floods at Montreal.

I have the honor to be, sir, your most obedient servant,

CHAS. GLACKMEYER, *City Clerk.*

A. GOBEIL, Esq., Secretary Department of Public Works, Ottawa.

EXTRACT from the *Minutes of a meeting of the Finance Committee, held on the 28th April, 1887.*

Submitted and read a letter from the secretary to the Department of Public Works at Ottawa, of date the 14th April, instant, calling upon the Corporation to pay their share of contribution towards the costs incurred by the Flood Commission.

Resolved, That whilst they are prepared to pay their contribution towards the costs of the Commission, as agreed upon, this committee, in the meantime, would like to know if the Commissioners, who were appointed, have any practical and effectual measures to offer, to prevent the inundations to which the city is periodically exposed, and how soon their report to that effect may be expected.

Ordered, That a copy of the foregoing resolution be transmitted to the Secretary of the Department of Public Works at Ottawa.

Certified.

CHAS. GLACKMEYER, *City Clerk.*

Reference No. 77,222.

CHIEF ENGINEER'S OFFICE, OTTAWA, 18th May, 1887.

SIR,—The Mayor of Laprairie calls attention in No. 76,343 to previous applications made for harbor improvements at that place. These are well known to the Department, and the Minister has directed that a dredge be placed at Laprairie immediately for the purpose of removing the obstructing portion of bottom lying between the two channels at that place.

The Mayor also refers to the work that has been done for the protection of their village against inundations, and states that the continuation of the works is a matter of the highest importance to the residents of the village.

Under date 14th of December last, I reported on an application of the municipal council of Laprairie, that steps be taken to prevent the periodical flooding of their village, and submitted a scheme for the prevention of the same, estimating the cost at \$5,000.

This scheme might be modified by the construction of that portion of the work shown on the plan accompanying No. 73,223 from the southern end of St. Ignace Street across the brook used as the main drain of the village and thence eastwardly along the old embankment of the disused railway which it appears has become the property of the village corporation. This embankment, with a sluice in the brook, would cost about \$1,250.

During the past year two ice breakwaters were constructed near the southern end of St. Ignace Street which were tested to their fullest capacity during the extreme high floods of the past spring, and the inhabitants of Laprairie agree in stating, that without these piers great destruction would have been done to their property—a large *banquise de glace* struck the small pier breaking the ice in pieces as it reached the top, without, however, stopping the current from carrying the *banquise* downwards, but when it got to the large pier it was stopped, and thus the village was saved.

I am, sir, your obedient servant,

HENRY F. PERLEY, *Chief Engineer.*

A. GOBEL, Secretary Public Works Department.

Reference No. 77,379.

CITY CLERK'S OFFICE, CITY HALL, MONTREAL, 21st May, 1887.

SIR,—I have the honor, by direction of His Worship the Mayor, to transmit to you herewith a memorandum of facts or points in connection with the recent interview at Ottawa between you and the delegates from this city on the subject of inundations.

I have the honor to be, sir, your obedient servant,

CHAS. GLACKMEYER, *City Clerk.*

Sir HECTOR LANGEVIN, Minister of Public Works, Ottawa.



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*MEMORANDUM of points submitted by the flood delegation from Montreal to the Honorable the Minister of Public Works.*

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The delegation was composed of :

- 1st. Delegates from the City Council and Montreal Board of Trade.
- 2nd. Delegates from the Committee of citizens.
- 3rd. Delegates from the Harbor Commissioners.

The substance of the representations made to the Honorable the Minister were as follows :—

That the annual flood at the City of Montreal, produced by the overflow of the River St. Lawrence, always productive of serious damage to the city and adjoining counties, had of late, and particularly during the last two years, reached a height unprecedented in the history of the city, had caused incalculable injury to a considerable portion of the city and to its trade and railway communications, and inflicted much misery and hardship upon its inhabitants. That public opinion has been now thoroughly aroused in respect of this question ; and that the welfare and progress of the city and of the adjoining counties, and their inhabitants, imperatively demand immediate protection from the recurrence of these disastrous floods.

That the City Council and the citizens are satisfied that the recommendations of the Commission of Engineers appointed to consider the subject in so far as they relate to the protection of the city, are in the main judicious, and that they should be carried out.

These suggestions consist in substance of the following :—

1. That a permanent dyke should be erected round the portion of the city lying south-west of the Lachine Canal, of a sufficient height to protect it from the incursions of the river.

2. That a sufficient temporary dyke should be erected along the front of the city lying north-west of the canal.

3. That a permanent dyke should be erected for the effectual and permanent protection of the last mentioned portion of the city.

In addition to these representations of the Commission of Engineers, it is the conviction of the City Council and of a great majority of the citizens, and probably cannot be effectually disputed ; that the flood is caused by the accumulation of ice below the city, which ice descends from the upper reaches of the river during the late autumn and early spring. The ice thus descending is intercepted by that formed in the calm water below the city, and gradually accumulates, raising the water during the winter to a very considerable height. And in the spring the additions made to it by the lower portions of the lake ice produce a barrier or dam, which throws back the water upon the city.

That elsewhere, experience has shown that under similar circumstances the detention of the ice in the upper reaches of a river, until the channel below them is clear, has been successful in preventing or mitigating floods ; and that such a result might be obtained in the St. Lawrence by placing piers or booms at the foot of Lake St. Louis to retain the ice there until the channel below becomes clear. And it is believed that by this means, the counties adjoining Montreal, as well as the city itself, would be protected.

That from the foregoing statement of the works to be done, it is obvious that they are of a very extensive character, and that they affect different interests which should in a due degree combine to obtain protection, and it was submitted to the Honorable Minister that these different interests and their respective obligations with regard to protection, might be roughly outlined as follows :—

The city to undertake immediately the construction of the dyke round the Point St. Charles section, and the construction of the temporary dyke along the front of the city.

The city, with the co-operation of the Harbor Commissioners, and the assistance of the Government, to proceed with the erection of a permanent dyke along the front of the city, acting of course upon professional advice as to the mode of construction of such dykes.



In speaking of the co-operation of the Harbor Commissioners, it was not suggested that they should undertake substantially the performance of or make any contribution to the construction of this dyke, but as it would probably be so constructed as to form the boundary between the territorial jurisdictions of the city and the Harbor Commissioners, it must necessarily affect them more or less. For instance, it is possible that it might be found that some part, or the whole, of the revetment wall would need rebuilding, and possibly that the line on which it is built might require to be changed in some degree, and it is also probable that the revetment wall might form to some extent the foundation of the dyke, and might indeed be an integral part of it, if the wharves should remain at their present level, or should not be raised as high as Commissioner Street.

In such a case, it is plain that the Harbor Commissioners and the city, would, from the very nature of their rights and interests, be obliged to co-operate in the work, and it is in this sense that the Harbor Commissioners were referred to in the representations made to the Honorable Minister. But at present, in consequence of the heavy charges on the harbor and shipping, caused by the necessity for the payment out of those charges of the interest on the Lake St. Peter debt, it is impossible for the Harbor Commissioners to undertake any new work for the benefit of the harbor or for its extension.

That in undertaking the construction of such large and extensive works as the above, the city would hope for the assistance both direct and indirect, of the Government.

That in other places subject to similar recurring calamities, Governments in other countries had afforded such assistance.

That in the cities of Antwerp and Hamburg, where works of protection had been executed, the General Government and the local authorities, had contributed directly along with those cities, to the construction of the works required; and the levees and dykes for the protection of the city of New Orleans were constructed and maintained at the expense of the state.

That there are several special reasons for the interposition of the Government, among which were mentioned the following, namely:—

The fact that it is probable that the floods have been aggravated by the deposit in the shallow waters below the city, of the dredgings from the harbor works; and this probability is strengthened by the fact that such dredgings have been stopped upon complaints of such a result.

That the River St. Lawrence is a navigable river under the jurisdiction and control of the Federal Government, and that important works to keep its waters within their natural channel, should be federal works.

That the Federal Government own very large properties in the city of Montreal, which receive their protection from disasters, fires and other casualties at the expense of the city, and have the benefit of the city administration, but are wholly exempt from taxation; and that in the event of an extraordinary expenditure outside the ordinary administration of the city, being required for the general benefit, it would seem reasonable that the Government should contribute with other proprietors.

It was therefore suggested that the Government might assist directly in the construction of the works of protection, by contributing a sum of money which might represent the capital of what the Government as a proprietor in the city would be bound to contribute annually were it not for the exceptional law as to exemption.

That it might undertake this season the construction of some work by means of piers and booms, or otherwise, to detain the ice formed in the upper reaches of the river, until the lower channel should become clear.

That it would probably, as a matter of course, raise such portions of the banks of the canal as might be necessary in conjunction with the dykes, to exclude the entrance to the water by means of the canal, upon either side of it.

With reference to the Harbor Commissioners and the Lake St. Peter debt, strong representations were made by the delegates in favor of the assumption of the

debt by the Government. Many of the delegates pressed this assumption strongly, as well on public grounds, applicable to the whole Dominion, as on the ground that such assumption would strengthen the hands of the Harbor Commissioners in the performance of such work as might properly fall to their share in the course of operations for the protection of the city. And they referred to the arguments that had already been used by the delegation and by the press, without reference to the floods; resting upon the character of the work as being a Federal work, as much as one of the Federal canals, and enlarged upon the injustice of leaving the interest upon its cost a special charge upon the harbor and shipping of Montreal. And it was the unanimous opinion of the delegation that now was a fitting time to urge the assumption of this debt upon the Government, not only upon general grounds applicable to that proposition, but also for the reason that doing so, would enable the Harbor Commissioners to do what might be proved to be incumbent upon them in connection with the new works on the line of the harbor now urgently needed. Several of the speakers endeavored to make it clear that the representation of the delegation did not mean that the Harbor Commissioners should use the revenue which would be free by the Government's assumption of the debt in any work for the protection of the city, but merely that some expenditure would be necessary where any part of such work proved to be of such a character as naturally and necessarily to be constructed by the Harbor Commissioners.

The representations of the delegation might tersely be summed up as follows:—

1st. That the Government, as proprietor of property, should make a reasonable contribution to the cost of the permanent dykes.

2nd. That the Government should cause means to be taken to retain the ice in the upper reaches of the river, and should raise the banks of the Lachine Canal wherever necessary.

3rd. That the Government should assume the Lake St. Peter debt.

The whole respectfully submitted.

J. J. C. ABBOTT,

*Mayor.*

GEO. A. DRUMMOND,

*President Montreal Board of Trade.*

MONTREAL, 21st May, 1887.

Reference No. 77,829.

STATEMENT of Expenditure incurred by the Government, from 1st July, 1886, to 8th June, 1887, for Surveys and Experiments in connection with the Montreal Spring Floods, showing names of persons to whom payments were made and dates of such payments.

Date.		Amount.
1886.		\$ cts.
July 2	T. C. Keefer, Chairman of Commission, on account of disbursements .....	1,000 00
August 10	do do do .....	3,000 00
October 6	E. D. Lafleur, services as Engineer and travel and expenditure .....	184 60
November 19	T. C. Keefer, Chairman of Commission, on account of disbursements .....	3,000 00
1887.		
March 27	T. C. Keefer, Chairman of Commission, on account of disbursements .....	2,000 00
April 9	do do do .....	1,000 00
do 13	do do do .....	2,800 00
Total.....		\$ 12,984 60



## CERTIFIED COPY

(77)

Of a Report of a Committee of the Honorable the Privy Council approved by His Excellency the Governor General in Council on the 5th September, 1888, relating to Appeals in Criminal Cases to the Judicial Committee of Her Majesty's Privy Council.

The Committee of the Privy Council have had their attention called to a telegraphic despatch dated 28th June, 1888, from Lord Knutsford to the Governor General, calling His Excellency's attention to the Statute of the last Session of the Parliament of Canada, chapter 43, intitled: "An Act to amend the Law respecting the procedure in Criminal Cases."

The Minister of Justice, to whom the matter was referred, reports as follows:—

In the year 1887 an Act was passed by the Parliament of Canada, having the same title as that now under consideration (chapter 50), amending the procedure in criminal cases for appeals to the Supreme Court of Canada, and enacting that the judgment of that court should, in all cases, be final and conclusive, and enacting that "notwithstanding any royal prerogative or anything contained in the Interpretation Act, or in the Supreme and Exchequer Courts Act, no appeal should be brought in any criminal case from any judgment or order of any court of Canada to any Court of Appeal established by the Parliament of Great Britain and Ireland, by which appeals or petitions to Her Majesty in Council may be ordered to be heard."

In a despatch from Lord Knutsford to your Excellency's predecessor, dated 1st May last, His Lordship stated in effect that he was advised that that Act (chapter 50, of 1887) did not affect Her Majesty's prerogative, or prevent Her Majesty from entertaining appeals in criminal cases, and from referring them to the Judicial Committee of the Privy Council.

Prior to the receipt of that despatch the undersigned, whose attention had been called to the fact that the construction that was afterwards suggested by Lord Knutsford might be given to the Act (chapter 50) of 1887, had the honor to introduce in Parliament the Bill which was afterwards enacted as chapter 43 of 1888, and in relation to which enquiry is made in the despatch from the Secretary of State for the Colonies, dated 28th June last.

This Act was assented to before the receipt by Lord Lansdowne, of Lord Knutsford's despatch of the 1st May last, suggesting that chapter 50 of 1887, would probably be construed as not affecting the royal prerogative, and indicating that a Statute intended to affect the prerogative should be reserved for the signification of Her Majesty's pleasure.

The object which Parliament had in view in enacting the Statute of 1888 (and, indeed, the intention in passing the Statute of 1887), was undoubtedly to make it clear that no right existed in Canada to appeal to Her Majesty in Council in a criminal case, and the undersigned would offer the following observations as to the policy and constitutionality of the Act:

The provision which Parliament has made in regard to appeals in criminal cases, other than to Her Majesty in Council, is to be found in the former of the Statutes, above mentioned, chapter 50 of 1887, and reads thus:—



## APPEALS AND NEW TRIALS:

"268. Any person convicted of any indictable offence or whose conviction has been affirmed before any Court of Oyer and Terminer or Gaol Delivery, or before the Court of Queen's Bench in the Province of Quebec, on its Crown side, or before any other Superior Court having criminal jurisdiction, whose conviction has been affirmed by any court of last resort, or, in the Province of Quebec, by the Court of Queen's Bench, on its appeal side, may appeal to the Supreme Court against the affirmance of such conviction; and the Supreme Court shall make such rule or order therein, either in affirmance of the conviction or for granting a new trial, or otherwise, or for granting or refusing such application, as the justice of the case requires, and shall make all other necessary rules and orders for carrying such rule or order into effect: Provided, that no such appeal shall be allowed if the court affirming the conviction is unanimous, or unless notice of appeal in writing has been served on the Attorney General for the Province within fifteen days after such affirmance.

"2. Unless such appeal is brought on for hearing by the appellant at the Session of the Supreme Court, during which such affirmance takes place, or the session next thereafter, if the said court is not then in session, the appeal shall be held to have been abandoned, unless otherwise ordered by the Supreme Court:

"3. The judgment of the Supreme Court shall in all cases be final and conclusive:

"4. Except as hereinbefore provided, a new trial shall not be granted in any criminal case, unless the conviction is declared bad for a cause which makes the former trial a nullity, so that there was no lawful trial in the case: but a new trial may be granted in the cases of misdemeanour in which by law new trials may now be granted."

This provision is now the law of Canada.

It does not differ materially from the enactments contained in the Revised Statutes on the same subject, sections 38, 68, 69 and 71 of chapter 135, and section 265 of chapter 174. Its effect is certainly to take away in criminal cases all appeals, excepting such as may be permitted by Her Majesty on special application to the Judicial Committee of the Privy Council, and there may be ground for contending that even the exercise of the prerogative in that regard would be restrained by the operation of these Statutes.

On the latter point, however, it is unnecessary at this time to present any argument.

The undersigned proceeds, therefore, to call attention to the policy which sustains the Act of last Session, on which the views of Your Excellency's advisers have been asked.

There can be no doubt that the tribunals by which the criminal law is administered in Canada afford the fullest opportunity that can reasonably be desired for the examination of every question of law and of fact which a criminal case can present. These tribunals are organized as the courts of England are, and the procedure in criminal cases, as well as the substantive criminal law, is almost an exact copy of the law of England in regard to such matters.

The qualifications required of those who preside in such tribunals are the same as those required in Great Britain and the zeal and learning of the practitioners are certainly no less than those which characterize the legal profession in any part of the Empire.

To the present day no appeal from a conviction in Canada has been prosecuted with success before the Judicial Committee of the Privy Council.

There seems, therefore, reason why, in regard to this subject, Canada should be permitted, as her Parliament has declared her desire to be permitted to regulate the administration of the criminal law without the intervention of Her Majesty's prerogative.

Appeals in criminal cases to such a remote tribunal are attended with, or at least admit of such delays that they may be made use of at any time merely to

obstruct the enforcement of the criminal law, and their effect, even though unsuccessful, is greatly to weaken the authority of the law and to lessen the respect and fear which it is necessary to maintain in regard to its primitive provisions.

The Judicial Committee has itself declared its appreciation of this view.

In the case of "The Falkland Islands Company vs. The Queen" (I Morris, P. C. C., N.S., 312) Lord Kingsdown, in giving the judgment of the Committee on the application for leave to appeal in a criminal case, said:

"It may be assumed that the Queen has authority, by virtue of her prerogative, of reviewing the decisions of all colonial courts, whether the proceedings be of a civil or criminal character, unless Her Majesty has parted with such authority. But the inconvenience of entertaining such appeals in cases of a strictly criminal nature is so great, the obstruction that it would offer to the administration of justice in the colonies is so obvious, that it is very rarely that applications to this board similar to the present have been attended with success."

In the case of the Queen vs. Joy Kissen Moo-Kergee (I Moore P.C.C., N.S., 295) the Right Honorable Dr. Lushington, in giving judgment, said:

"With regard to the merits of the case itself their Lordships are certainly inclined to come to the conclusion that justice has not been very well administered in this case, and supposing it to have been a civil and not a criminal case they would have had no hesitation whatever in recommending to Her Majesty to allow an appeal for the purpose of considering these proceedings and of doing justice to the party complaining. But this is a criminal case and subject to very different considerations.

"Admitting therefore two things—admitting the existence of the prerogative of the Crown, and admitting that this *prima facie* and presumptively, is a case of great grievance, their Lordships have now to determine whether, looking at all the circumstances attending the granting of appeals in criminal cases, it would be their duty to advise Her Majesty to grant this appeal or to withhold it.

"We must recollect in the first place that by granting an appeal is meant an examination of the whole of the proceedings which have taken place.

"It is not simply for the investigation of any legal question which might have arisen, it is for the purpose of examining the whole of the evidence and the whole course of the proceedings upon the trial to enable us to come to a conclusion upon the merits.

"Now, it is of no small importance to bear in mind that, notwithstanding the numberless instances in which an application of this kind might have been made to the Queen in Council, from all the various dominions subject to Her Majesty, from all parts of those dominions that were acquired by conquest, and where Her Majesty has the entire sovereign power of legislating as she may think fit, either by Order in Council or, as was determined on a former occasion, by virtue of letters from the Secretary of State, it is, I say, to be borne in mind, that in no instance whatever of any grievance however great, at any time, has any attempt ever been made to apply to Her Majesty for leave to appeal in a criminal case.

"We can easily call to memory very many instances which have occurred in the colonies in which it has been alleged that gross injustice has been done, and even lives sacrificed where they ought not to have been exposed to any danger, but no precedent of any appeal of this nature has existed, and we think it is obvious upon the least consideration of the consequences, how it is that no such precedent would have been created, even if an attempt had been made to call into force the power of the Crown.

"It may be true that on some occasions it is not very desirable to argue simply from consequences alone, but the consequences of granting an appeal in cases of this description are so exceedingly strong, they are so entirely destructive of the administration of all criminal jurisprudence, that we cannot for a single moment doubt that they are of the greatest importance in guiding us to form a judgment.

"Now, if we are to advise Her Majesty to grant an appeal on this petition, how would the case stand? It is simply the case of an individual having been convicted of causing documents to be forged.



"Would not the same right apply to capital cases? What could be done in a capital case? Is there any distinction which can be drawn? If the prerogative of Her Majesty gives this individual the right of appeal, could any rules or regulations be imposed whereby the right of appeal could be governed, or could be restricted? So you would go through the whole catalogue of cases, and there is no doubt whatever that whenever punishment was likely to ensue, there would follow an appeal to Her Majesty in Council, and consequently, not only would the course of justice be maimed, but in very many instances it would be entirely prostrated.

"These are the reasons which operate upon our minds in rejecting this application—not at all forgetting that injustice may have been done in this individual case, and not at all forgetting that the power of the Crown may be invoked in another shape, and that that injustice may be remedied. Their Lordships are of opinion that they cannot, under the existing circumstances, advise Her Majesty to admit this right of appeal, but they doubt not that justice will be done, because they would suggest that an application should be made to the constituted authorities who have the power to afford a remedy, though in a different way.

"They doubt not that when it is represented to those authorities that this suggestion emanates from the Judicial Committee, they will not be loth to examine into the circumstances of the case, and to do that which justice may require."

The same judge said in the case of "*The Queen vs. Eduljee Byramjee*" (5 Moore's P. C. C. 290):—

"But if the Crown has really, by this charter, reserved to itself the right of granting an appeal in such cases, what are the inevitable consequences? To cause execution to be done would be in effect to prevent the right of granting an appeal vested in the Crown, and to take away from the prisoner convicted, the right of laying his case before his sovereign, and of obtaining a reconsideration of it.

"For it must be remembered, that if a reconsideration by way of appeal be reserved to the Crown, the right of applying for it must be reserved also. But if this were really the state of the law, we doubt whether any court, or any authority would think itself justified in ordering execution to be done till there had been an opportunity given to the prisoner of applying to the Crown for a reconsideration of the case according to the right reserved to the Crown and the prisoner. Many very evil consequences must follow necessarily in this state of things. A long period must elapse before an application to the Crown could be made, and its decision could be known, and eventually, where the leave to appeal was refused (and it must be presumed that this would generally be the case), execution would follow the sentence after so long an interval, that all benefit to be expected from a public example would be lost; and to this it may be added that in a great majority of cases the convicts themselves would be kept in a state of miserable suspense to suffer in the end the same ignominious death to which they were sentenced."

In a country like Canada comprising an area of three and a half million square miles, with seven Provinces, besides the great Territories, each possessing a fully organized judicial system, and with a Supreme Court of Appeal from all, the inconveniences and obstructions which have been so justly described in the foregoing citations may be felt in a greater degree than in a colony differently situated. Were it generally supposed that an appeal to Her Majesty in Council would lie in all criminal cases such appeals would be directed in capital cases merely for the sake of delay, after every other effort to obtain commutation or respite had been exhausted; and indeed this has actually been attempted in several instances.

The undersigned believes that no difficulty can arise on the question as to whether such a statute as the one under review is within the competence of the Parliament of Canada.

The British North America Act recites that "The union of the Provinces into one Dominion under the Crown with a constitution similar in principle to that of the United Kingdom, would conduce to the welfare of the Provinces and promote the interests of the Empire." It enacts that (sec. 9) "The executive government and authority of and over Canada is vested in the Queen." That (sec. 17) "There shall

be one Parliament for Canada, consisting of the Queen, the Senate and the House of Commons." That (sec. 55) "The Governor may assent to a Bill in the Queen's name." That (sec. 91) "It shall be lawful for the Queen by and with the advice and consent of the Senate and House of Commons, to make laws for the peace, order and good government of Canada in relation to . . ." (Sub-sec. 27) "The criminal law, except the constitution of courts of criminal jurisdiction, but including the procedure in criminal matters"; and that (sec. 101) "The Parliament of Canada may provide for the constitution, maintenance and organization of a general Court of Appeal for Canada for the better administration of the laws of Canada."

It is submitted that this Act gives to the Parliament of Canada in respect to the subjects of Her Majesty in Canada, and in relation to the matters upon which it is authorized to legislate, powers of legislation as full and complete as those possessed by the Imperial Parliament, subject only to the power of disallowance by Her Majesty, a power which was doubtless reserved in order to maintain such control as might be necessary in matters strictly of Imperial policy, and not with a view of abridging the large measure of self-government which was intended by the conferring of a constitution "similar in principle to that of the United Kingdom."

Her Majesty's prerogative in Canada can be as effectually relinquished by an enactment made by Her "with the advice and consent of the Senate and House of Commons of Canada," as Her prerogative in Great Britain can be by enactment made by her "with the advice and consent of the Lords Spiritual and Temporal and Commons" assembled in England.

A great number of the Statutes passed by the Legislature in a colony must (and a great number of the statutes of Canada do), necessarily restrict the royal prerogative; the establishment of courts, especially such a Court of Appeal as the Supreme Court of Canada, having finality given to so many of its decisions, the regulation of the appointment of judges and their jurisdiction and of Ministers of the Crown, the conferring of powers on the latter to act in Her Majesty's name, the regulation of procedure in courts of justice, the regulation of procedure on petition of right, the statutes relating to Crown lands, and franchises, and to the public revenue, and as to the disposition of fines and forfeitures, and the remission of penalties and as to pardons, are instances which may be recited among hundreds of enactments affecting the royal prerogative as clearly as the Act in question does, although perhaps not to so great an extent.

It would seem that in several cases the Judicial Committee has at least by implication recognized the power of a Colonial Legislature by apt words to take away all appeals to Her Majesty in Council. The cases of *Cuvillier vs. Alwyn* (2 Knapp P. C. R. 72), and *In re Lewis Marvis* (15 Moore P. C. C. 189), *Johnston vs. W. Andrews Church* (3 Appeal cases, 159), and *Cushing vs. Dupuy* (5 Appeal Cases, 409), illustrate this view.

Although this branch of the subject admits of great elaboration, the undersigned forbears to discuss it more fully at present, and indeed would not have adverted to it were it not that the correspondence which has taken place with your Excellency with regard to this statute does not indicate what difficulties may have been present in the mind of Lord Knutsford when he requested a statement of the grounds on which it was expected that the Act should be left to its operation.

The position seems equally clear that this statute is within the sphere of the Canadian Parliament as marked out by the British North America Act.

It is one of the "laws for the peace, order and good government of Canada," it is a statute affecting the "criminal law," and it is likewise a statute relating to the "constitution, maintenance and organization of a General Court of Appeal for Canada."

The extent of the powers conferred even by the authority to make "laws for the peace, order and good government of Canada" may be illustrated by a reference to the case of *Riel vs. Regina* (10 Appeal Cases, 675), in which the Lord Chancellor points out that these words: "are apt to authorize the utmost discretion of enactment. They are words under which the widest departure from criminal procedure,



as it is known and practised in this country, have been authorized in Her Majesty's Indian Empire. Forms of procedure unknown to the English Common Law have there been established and acted upon, and to throw the least doubt upon the validity of powers conveyed by those words would be of widely mischievous consequence."

The Committee, concurring in the report of the Minister of Justice, recommend that Your Excellency be moved to forward a copy hereof to Her Majesty's Principal Secretary of State for the Colonies, in response to the request contained in his despatch before referred to.

All of which is respectfully submitted for Your Excellency's approval.

JOHN J. MCGEE, *Clerk Privy Council.*

(*Lord Knutsford to Lord Stanley.*)

DOWNING STREET, 12th February, 1888.

MY LORD,—I have the honor to inform you that Her Majesty will not be advised to exercise her power of disallowance with respect to the Act passed in the last Session of the Parliament of Canada, entitled: "An Act to further amend the Law respecting Procedure in Criminal Cases."

I have, &c.,

KNUTSFORD.

Governor General, the Right Honorable Lord Stanley of Preston, &c., &c.

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